

منظر الملاحة الفلكية في المحيط الهندي وبحاره الشاطئية
في القرن التاسع الهجري / الخامس عشر الميلادي

تأليف
إبراهيم خوري

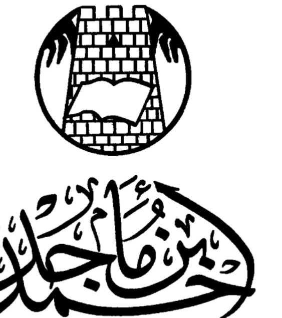
المجلد الثاني



إشبيلية
للدراسات والنشر والتوزيع
دمشق - سورية







أحمد بن ماجد

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الجزء الثاني

شعره الملاحي

حاوية الإختصار في أصول علم البحار

ترجمتها الإنكليزية وترجمة السفالية

تحقيق وتحليل وترجمة

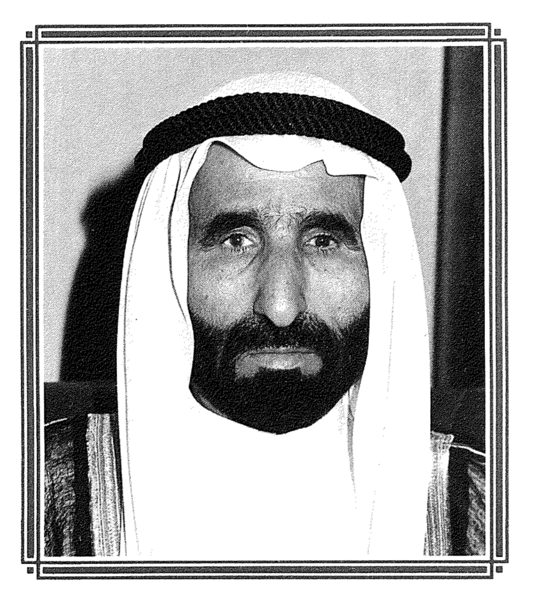
ابراهيم خوري

كتاب الأبحاث

٥

سلسلة الملاحة العربية الفلكية





صاحب السمو الشيخ صقر بن محمد القاسمي

حاكم إمارة رأس الخيمة



سمو الشيخ خالد بن صقر القاسمي

ولي العهد ونائب الحاكم



تصدير

يأتي اصدار تصانيف أحمد بن ماجد في جزئين لشعره الملاحي وجزء لنثره ، ضمن سلسلة الملاحة العربية الفلكية ، من اصدارات كتاب الابحاث لمركز الدراسات والوثائق برأس الخيمة ، خطوة علمية جديدة في احياء مؤلفات عالم البحار العربي ، **ابن مدينة جلفار التاريخية في دولة الامارات العربية المتحدة** .

وتتمثل أهمية هذه التصانيف في كونها تشمل جانباً واسعاً من اراجيز ابن ماجد وقصائده العلمية ، سواء منها ما يتحدث عن علم الملاحة وتجاربه ، أو عن علم الفلك وقياساته ، أو عن علم الجغرافية واكتشافاته . وكلها علوم ومعارف ما يزال البحارة يستفيدون منها في اسفارهم وتنقلاتهم بين موانىء الخليج العربي والبحر الأحمر وموانىء المحيط الهندي عامة .

لقد عمد المركز ، بتوجيات سامية من **صاحب السمو الشيخ صقر بن محمد القاسمي ، حاكم امارة رأس الخيمة ، وبمتابعة من سمو الشيخ خالد بن صقر القاسمي ، ولي العهد نائب الحاكم ، وباشراف سمو الشيخ سعود بن صقر القاسمي رئيس الديوان الأميري** ، الى البحث والتنقيب عن كتب ابن ماجد ومؤلفاته الشعرية والنثرية ، اضافة الى جمع ما كتب عنه من دراسات وابحاث سواء كانت باللغة العربية (وهي قليلة) أو باللغات الاجنبية (وهي الأكثر أهمية) ، كذلك اقتنى مركز امارة رأس الخيمة مخطوطات ابن ماجد أو مصوراتها ليحيط بكل ما يتعلق بهذا العالم الجليل من علوم ونظريات ومخترعات وتحقيقها ودراستها ونشرها وفق الاصول العلمية .

وفي هذا السبيل يقوم تعاون مثمر بيننا وبين عدد من الاساتذة الاجلاء ، ومع الجهات العلمية المهتمة بهذا الشأن . فكان انجاز هذه السلسلة التي بدأناها بكتاب (أحمد بن ماجد منظّر الملاحة الفلكية في المحيط الهندي وبحاره الشاطئية في القرن التاسع الهجري /الخامس عشر الميلادي) ثم هذه الاجزاء الثلاثة ، بالتعاون مع الاستاذ الباحث والمحقق ابراهيم خوري ، الذي له باع طويل في العلوم البحرية والفلكية وفي مؤلفات ابن ماجد على وجه الخصوص . والعمل جار لانجاز طباعة عدد آخر من الكتب التي تبحث بعلوم ابن ماجد وانجازاته .

وأملنا كبير أن يجد القارىء العربي في هذه الاصدارات العلمية المراجع التي طالما افتقدتها المكتبة العربية عن عالم من أشهر علماء العرب في الغرب ، وعن علوم نهل منها الفكر الأجنبي في مسيرته الحضارية العلمية المتزايدة .

والله ولي التوفيق

احمد جلال التدمري

مدير مركز الدراسات والوثائق

مقدمة عامة

آلينا على انفسنا ان ننشر تباعا تصانيف العلوم البحرية عند العرب ، لتتوفّر للباحثين نصوص صحيحة يعملون على اساسها . فجاء هذا الجزء ثانيا في ترتيبنا ، وضمّناه بعض شعر ابن ماجد الملاحي . ونأمل ، بعون الله ، ان ننجز اصدار باقي الاجزاء في مستقبل قريب .

وقد قدّمنا شعر ابن ماجد على نثره ، لأن الشعر ديوان العرب ، ولأن شعره ديوان علمه الغزير وتجاربه الفريدة ، وابتكاراته الجديدة في علم البحر ، وديوان ما كتب قبله في الملاحة البحرية عند سائر العرب ، وعند الشعوب القاطنة في سواحل بحر الهند من زنج وشوليان وغيرهم . وليس نثره سوى شروح وتعليقات ، مجموعة في كتاب تارة ، ومتفرقة في وريقات احيانا اخرى (الفصول) ، اراد بها توضيح بعض نظمه الذي استعصى فهمه على بعض المعالمة المعاصرين له ، أو خشي ان يستعصي في مستقبل الايام على بعض قرّائه من ربابنة او باحثين .

وأحمد بن ماجد رائد «بالشعر العلمي الملاحي» او بالملاحة العلمية في الشعر ، على الرغم من تقصيره الصارخ ، باعترافه ، في سلامة اللغة احيانا ، وفي سلامة الاوزان احيانا اخرى . فلم يسبقه احد من العرب ، ولا حتى من العجم او الهنود او الفرنج ايضا ، الى تصنيف مبادىء علم بحر عصره وما قبل عصره ، بتمامها وكمالها ، نظما في عدة بحور شعرية ، وفي ابيات تجاوز عدد ما نعرفه منها ٤٦٠٣ ابيات ، وصلت الينا في ٢٤ ارجوزة وقصيدة ، تشتمل اطولها على ١٠٨٢ بيتا ، واقصرها على ١٣ بيتا . ولابن ماجد كثير من الاراجيز والقصائد الملاحية ما تزال مفقودة حتى الآن ، نأمل ان يعثر اهل العلم عليها عاجلا او آجلاً .

وبالله التوفيق

ابراهيم خوري

تمهيد

لم اضمن كتابي السابق تحليلاً لما نشره الباحثون العرب من مقالات أو كتيبات صغيرة عن أحمد بن ماجد وعن تآليفه ـ باستثناء ـ ما يتعلّق منها بمواقفهم من قضية الارشاد الزائفة . وارجأت بحث هذه الدراسات العربية إلى كتاب مستقلّ لاحق سوف اصدره بعد طبع نصوص ابن ماجد المحققة ووضعها بين أيدي القراء وأهل الفكر . ولي كلمة لا بدّ من قولها بشأن تحقيقها وتحليلها .

أولاً ـ تحقيق تصانيف ابن ماجد

خرجت في نشرها على «شبه عرف» ابتدعه المستشرقون فرّان وشوموفسكي وتيبتز . فالأول صوّر تصويراً مخطوطة باريس واعتمد عليها في كل ما كتب . وصوّر الثاني تصويراً أيضا مخطوطة لينغراد، وترجمها إلى اللغة الروسية . وتبنى الثالث ترجمة كتاب الفوائد في أصول علم البحر والقواعد إلى الانكليزية عن مخطوطة باريس على علاتها . وهذا يعني ان جميع أبحاث هؤلاء المستشرقين ارتكزت على نصوص يشوبها التحريف والتصحيف وأخطاء النّساخ والاغلاط النحوية واللغوية التي يحتمل احتمالاً فقط ان يكون ابن ماجد قد وقع فيها في أثناء تصنيفه كتبه ، ويعود كثير منها الى ضعف ثقافة النساخ ، فشوّهت بالتالي تشويهاً خطيراً الملاحة العربية المعروضة فيها ، لا سيما ان جميع المخطوطات المعروفة تنطوي على اسقاطات متفاوتة الحجم والعدد ، لكنها تكّمل بعضها متى حققت .

وتلافيت هذا المنحى الخاطىء ومضاعفاته بتحقيق كتب ابن ماجد ، واتبعت فيه القواعد التي وضعها السلف الحكيم . ولما لم تتوفر حتى الآن نسخة بخط المؤلف لا يجوز الجدل في نصها ، ولا نسخة مقروءة عليه لها القيمة ذاتها تقريبا ، تحتّم علي تطبيق طريقة مقارنة النسخ الموجودة وتثبيت نقاط التباين بينها في الحواشي ، وتخليص نصها من شتى الاخطاء ، جهد المستطاع ، اعتماداً على الاستقراء والاستنتاج والسياق الخ ، وعلى خبرتي الطويلة في التحقيق ومطالعتي الكتب المحققة . وتنوّعت بعض التفاصيل في منهجي حسب مقتضيات الحال في الحاوية أولاً ، ثم في بقية الاراجيز والقصائد ثانياً ، ثم في كتاب الفوائد ثالثاً وأخيراً . وابدأ الآن بما يخص الحاوية المنشورة في هذا الجزء الثاني من سلسلة الملاحة العربية الفلكية التي يطبعها مركز الدراسات والوثائق في الديوان الاميري برأس الخيمة باشراف سمو الشيخ سعود بن صقر القاسمي ، رئيس الديوان الاميري . وسوف اشرح منهج تحقيق الاراجيز والقصائد ثم منهج تحقيق كتاب الفوائد في الوقت المناسب في مطلع الجزئين الثالث والرابع .

أ ـ تقديم شعر ابن ماجد الملاحي على نثره

وقدّمت شعر ابن ماجد الملاحي على نثره ،لأن شعره أصل ونثره فرع : فالمعروف من اراجيزه وقصائده يفوق كثيراً نثره من ناحية «كمية» النص المكتوب ، ومن جهة «كمية» المعارف المعروضة . وابن ماجد هو القائل :

قصدي الأصول في علم البحر لا قصـدي الهرج وكـثر الشعر[1]

وهذا يعني صراحة ان اكثاره من الشعر لا يتوخّى الافراط في الكلام ، بل استعراض مبادىء الملاحة . وابن ماجد هو القائل أيضا عن مضمون كتاب الفوائد : «وفيه ما اشتبه من الحاوية والاراجيز وغيرها على الطالبين»[2] . وهذا يعني ان كتاب الفوائد شرح للحاوية والاراجيز والقصائد ، لا علم قائم بذاته .

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(١) الحاوية ، الفصل ١١ ، البيت ٧٥ .

(٢) كتاب الفوائد ، طبعة مركز الدراسات والوثائق ، ص ٢٠ ، س ١٠

ب ـ تصدير شعر ابن ماجد الملاحي بالحاوية

وصدّرت شعر ابن ماجد بالارجوزة الحاوية ، لأنها وحدها تحوي ملاحته كاملة ، وان كانت مكّثفة . وقد قوّمها هو نفسه ، وقال عنها :

وحـاويـة العلم النفيس افـادهـا ليجري عليها كل آت وذاهب[1]

واوضح ما يقصد بالعلم النفيس في صلب الحاوية عندما حدّد موضوعها في شعرها ، فقال :

يـا أيهـا الـطالـب علم الـيـمّ إليـك نـظها يـا لـه من نـظم
في الـعلم والهيئـة والحسـاب ومـا هـو استنبط للصـواب[2]

وسمّاها كتابا بصراحة كلية فقال :

لا تـأخـذ الصفـات من كتـابي إلا صفات الصدق والصـواب[3]

وقّسمها الى احد عشر فصلا ، وحدّد موضوع كل فصل في عنوانه . لذلك كله افردنا للحاوية جزءاً خاصاً بها . وبدأنا أعمالنا بتحقيقها وتحليلها .

جـ ـ النسخ المعتمدة في تحقيق الحاوية

واعتمدنا في تحقيقها على ثلاث نسخ ، مكّنت مقارنتها من تحديد عدد أبياتها الـ ١٠٨٢ ، ومن تعيين عدد أبيات كل فصل منها مثلما جاء في الفقرة ٧٩ منها . واكتشفنا فيها ثمانية أبيات منحولة . هي البيت ١٠٧ من الفصل الرابع ، والأبيات ٦٢ ، ١٠٦ ، ١٠٧ ، ١٣٦ ، ١٣٧ من الفصل الخامس ، والبيت ٦٣ من الفصل السادس ، والبيت ٣٩ من الفصل التاسع .

وهذه النسخ هي :

١ ـ التاجرية ، وتشغل الحاوية الأوراق ٢٠٧ إلى ٢٣٨ منها ، وخطها نسخي ، ولا تحوي كل الأبيات .

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(١) الذهبية ، البيت ١٥٤ .
(٢) الحاوية ، الفصل الأول ، البيتان ٦و٧ .
(٣) الحاوية ، الفصل الأول ، البيت ٣٦ .

٢ ـ الظاهرية ، وتشغل الحاوية الأوراق ١٠٠ إلى ١٢٦ منها ، وخطها نسخي ، ولا تحوي كل الأبيات .

٣ ـ الباريسية ، وتشغل الحاوية الأوراق ٨٩ إلى ١١٧ منها ، وخطها نسخي ، ولا تحوي كل الأبيات .

د ـ منهج التحقيق

١ ـ جعلنا التاجرية أصلاً أولاً ، وقارناها بالظاهرية والباريسية وابنا الفروق اللفظية بينها في الحواشي .

٢ ـ والمحنا إلى كل نقص أو زيادة في كل نسخة ،لا سيما في الظاهرية والباريسية .

٣ ـ وصححنا الأخطاء اللغوية متى أمكن دون تغيير المعنى مثل نصب الفاعل أو جرّه ورفع المفعول وتذكير المؤنث وتأنيث المذكر الخ .

٤ ـ وقوّمنا استعمال الضمائر متى تيسّر : مثل ضمير الجمع (هم) بدل ضمير المثنى هما أو الضمير هنّ .

٥ ـ وصححنا اغلاط املاء المفردات وتحريفاتها وتصحيفاتها .

٦ ـ وحذفنا الزيادات في اشطر الأشعار ، المخالفة للوزن ، دون تغيير المعنى .

ثانياً ـ تحليل الحاوية

ولم نبدّل شيئا من الحاوية ، لكننا حلّلنا فصولها إلى فقرات مرقّمة من ١ إلى ٨٠ ، يعبّر فيها ابن ماجد عن فكرة أساسية ، ابرزناها له ضمن قوسين معقوفتين مسبوقتين برقم متسلسل مستقل عن أرقام الأبيات ، اشارة إلى انها خارجة كليا وتماما عن نصّه وكتابته . وتوّخينا بهذا الأسلوب مجاراة الأبحاث المعاصرة التي تساعد القارىء أو الباحث في العثور بسهولة على ما يريده ، وفي ايجاد الاستشهادات اللازمة له ، وفي تكوين تصوّر شامل عن التسلسل المنطقي السليم في الحاوية . وهذا يعني مساعدة القارىء في ادراك الكليات والجزئيات .

وانطلقنا في هذا التحليل المستقل كليا عن النص المحقق المحافظ عليه أصولا ، من فكرة ابن ماجد نفسه الذي يجزم ان الحاوية تتضمن علم البحر الملاحي جملة وتفصيلاً ، فأبنا تصوّره العام وتفاصيله الدقيقة دون المسّ بالنص الأصلي المحقق .

ثالثاً ـ ترجمة الحاوية والسفالية الى الانكليزية

ودفعنا التغافل عن هذه الحاوية ، والتغاضي عن قيمتها الحقيقية ، الى نقلها الى الانكليزية ، ليستفيد من ترجمتها جميع الذين تهيّبوا الاقتراب من شعر ابن ماجد ، أو استعصى عليهم فهم معانيه . وأقنعنا تشويه كتاب الفوائد ، في ترجمته الانكليزية ، بضرورة نشر النصوص الملاحية العربية باحدى اللغات الاوربية . وترّسخت هذه الفكرة في ذهننا بعد حضورنا مؤتمر لشبونة عن التوسع البرتغالي في العالم ، واطلاعنا على الأفكار الخاطئة المبنية على ترجمة السفالية الروسية والبرتغالية . فنقلنا السفالية الى الانكليزية ايضاً ، وصححنا ما وجب تصحيحه فيها ، وطبعها لنا مركز الدراسات الكرتوغرافية القديمة ولجنة الأبحاث العلمية لما وراء البحار في جامعة كويمبرة (١٩٨٣) . فادخلنا ترجمتها في هذا الجزء ، ليطلع عليها من فاته الحصول على نسخة منها بعد ان نفدت بسرعة خلال عام طبعها الأول .

أخيراً تبيّن ان نشر أبحاث عن ابن ماجد باحدى اللغات الاوربية اثار فضولاً علمياً جديداً حث بعض الباحثين على ترجمة شعره الملاحي لتكون معلوماته في متناول الذين لا يجيدون اللغة العربية . ونحن ندقّق الآن ترجمة فرنسية لبعض أراجيزه ، اجراها باحث فرنسي شاب ، وسوف ينشرها في أواخر هذا العام .

اذن يحوي هذا الجزء الثاني ملاحة أحمد بن ماجد ، كاملة غير منقوصة ، حسبما صرّح هو بالذات في مناسبات عديدة ، في أصلها العربي ، وفي ترجمتها الانكليزية ، حفظاً لمعانيها من التزييف والتشويه عند نقلها الى لغة اخرى . وادرجنا فيه ايضاً ترجمة السفالية ، ثانية اراجيزه بالطول (سبع مائة بيت وبيت) وبالأهمية ، مقسمة الى فصول وفقرات على غرار الحاوية ، لهدم كل ما بناه عليها المستشرقون من نظريات خاطئة عن الملاحة العربية . وأرجأنا النص العربي الى الجزء الثالث ووضعناه في أوله . وخصصنا كتاب الفوائد بالجزء الرابع . وبذا نكون قد تقيّدنا حرفياً بمخطط ابن ماجد : فالحاوية تتضمن ملاحته مكثفة ، وتتوسع باقي الاراجيز والقصائد في أفكار الحاوية المكثفة . ويشرح كتاب الفوائد ما ظنّ ابن ماجد انه يحتاج الى شيء من الايضاح في نظمه وشعره .

الارجوزة الاولى

حاوية الاختصار في اصول علم البحار

بسم الله الرحمن الرحيم

[وبه نستعين][١]

1 [الحمد للّه]

الحمدُ لله على حُسن تَوفيقه ، وإلهام الحقِّ بتحقيقه ، والهداية الى البحر وطريقه[٢] ، ونَصره في تَغريب الفُلْك وتَشريقه . أَحمده على معرفةٍ أَلْهمناها وأَمدَّها[٣] لسلسبيل البحر منه ورحيقه ، وفَصاحةٍ تدهشُ بليغَ اللفظ ومنطيقه[٤] . والصلاة والسلام على النبي الأُمّيِّ ، [وعلى آله وصحبه][٥] وفريقه .

2 [تصنيف الحاوية للهداية وحفظ العلم]

أَما بعدُ، خُذِ التواضعَ وهَزْله، ورقيقَ اللفظ وجزله، فإنَّ التصنيفَ لمثل[٦] هذه الأُرْجوزة زكاةُ الافهام، [وتجديد سرّ درسته الليالي][٥] والأَيَّام، أَقْبلت بي اليها طاعةُ ملك [الأَملاك ومُدَبِّر][٥] العالم[٧] والأَفلاك، لقوله، جلَّ من قائل وصَدَق:

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(١) زيادة من ب .

(٢) ب ، ظ : والهداية لاسباب الخير وطريقه .

(٣) ت : واحدها . التصويب من ب ، ظ .

(٤) ب ، ظ : ووجيزة .

(٥) زيادة من ب وظ .

(٦) ت : فان هذه التصانيف كمثل ، البديل من ب ، ظ .

(٧) ت : معالم ، التصويب من ب ، ظ .

وعلامات وبالنجم هم يهتدون . فتحقَّقَتْ ظنوني[1] ، وشاهد قلبي وعيوني أَنَّ فيها وبها بعدَ الله [تعالى][2] الهداية .

وممَّا حملني[3] على نظمها ، خشيتي إيقاع الجهل على البريَّة ، واندراس العلم ونزوله بساحة من ليس له فيه أَهْليَّة ، فوضعتُ[4] فيها [من][2] الأَلفاظ الغريبة [والحكمة][2] الربانيَّة ، بمشيئة الله [تعالى][2] ، ما أَرجو به انشراح صدور ذوي الأَلْباب[5] ، عندما يدهيهم من شدَّة ومصاب .

صنَّفتُها[6] ممَّا سَلَكَ[7] في عَصْري منَ الأَراجيزِ المُصَنَّفة ، والرَّهْمانَجَاتِ الواسعة المؤلَّفة ، الكبيرة[8] المقدار ، الكثيرة التردُّد والتكرار . كلُّها مستحسنة لكافَّة[9] الجمهور ، وهي للمضيوم[10] إقالة وحضور .

وكانَ قصدي الاختصار ، وإسقاط الحَشْو من هَوْش الإكثار ، لئلا يستطيلها الملول ، ولا يتفرغ[11] لقرائتها المشغول .فرحمَ الله من يصفحُ عمَّا[12] يجدهُ منَ الزلل ، ويصلحُ ما فيها من خطأ وخلل .

وهي الأُرْجوزة المُسَمَّاة بـ «**حاوية الاختصار في أصول علم البحار**» مشتملة على أَحد عشر فصلاً ، تَصْنيف العَبْد الفقير ، **المُعْتَرف** [بالعجز] والتقصير ، أَقلّ عباد الله وأَحوجهم[13] الى رحمة الله العليِّ الكبير ،بقيَّة السلف ، وعمدة الخلف ، المعلِّم الشهير أَحمد بن ماجد بن محمد بن عمر بن فضل بن دُوَيْك [بن أَبي الركائب][14] النجدي، عفا الله عنه وعنهم أَجمعين[15] . وهذه فصول[16] الأُرْجوزة . وهي :

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(1) ت : بظنوني ، التصويب من ب ، ظ .
(2) زيادة من ب ، ظ .
(3) ت ، ب ، ظ : حل بي ، وهو تصحيف .
(4) ت : فقطفت ، البديل من ب ، ظ .
(5) ت : شرح ذوي الالباب ، البديل من ب ، ظ .
(6) ب ، ظ : صفيتها .
(7) ت : شك ، والتصويب من ب ، ظ .
(8) جميع الأصول : كثيرة .
(9) ت : بكافة ، البديل من ب ، ظ .
(10) ت : للمطيوم ، تصويب ب ، ظ .
(11) ت : يفرع ، البديل من ب ، ظ .
(12) ب ، ظ : تصفع ما يجده .
(13) ت : وارجاهم ، البديل من ب ، ظ .
(14) ت : دويك البركاني ، والتصويب من ب ،
(15) ب ، ظ : وعنهم وعن جميع المسلمين . آمين . يا كافي يا شافي يا هاوي يا معين .
(16) ت : أفصال . البديل من ب ، ظ .

الفصل الأول

الحمد* والثناء على الأُستاذِيْنَ ، وذكر إشارات يَحتاجُ إليها الربابين ، ممّا لا يُجْهَلُ فضلُه** ، كالطين والحشيش والبلد والمَارِزَة ، [وما شابَهَ ذلك]***

3 [البسملة والحمدلة]

بسم الله الرحمن الرحيم

١	الحمدُ للخالقِ* ذي الجَلَالِ	القَاهِرِ الفَـرْدِ بـلا مِثَـالِ
٢	أَحْمَـدُهُ حَمْـداً كمـا هَـدَاني	إلى الصلاةْ على النبيْ العدناني
٣	فَنَـظْمِ تَـأْليفِ ابن كهـلانِ	وَسَهْلِ واللَّيثِ وَلَدْ* شـاذانِ
٤	ذوي النُّهى ومُصْلحينَ الشانا	زَخْـرَفَ رَبِّي لَهُمُ الجنانـا
٥	وَٱسْتَغْفِـرُ الله منَ النقصـانِ	أو زائـدٍ صـوَّرَهُ لسـاني*

★ ★ ★

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* ت : تحمد ، البديل من ب ، ظ .

** ب ظ : لا يحمل فصل .

*** زيادة من ب ، ظ .

(١) * ب ، ظ ؛ الحمد لله الخالق .

(٣) * ب ، ظ : بن .

(٥) * ب ، ظ : اللسان .

4 [تقديم الارجوزة]

٦ يا أَيُّها الطالبُ عِلْمَ اليمِّ* إليكَ نَظْماً يا له مِنْ نَظْمِ

٧ في العلمِ والهَيْئةِ* والحسابِ وما هُوَ آسْتُنْبِطَ** للصَّوابِ

٨ إنْ كُنْتَ ممَّن جدَّ في العلومِ وَذاكَرَ الأُسْتاذَ كلَّ يومِ

٩ يُغْنيكَ عَنْ رَهْمَانَجاتِ النَّثْرِ هذا الذي نَظَمْتُهُ بالشِّعرِ

١٠ والشَّرطُ لا يُقرا بلا أُسْتَاذِ إنْ لَمْ يَكُنْ للفُلْكِ غير حادي*

١١ لأنَّ فيها الرَّمْزَ يا ابن الأُمِّ* يَحَسَبُهُ الجاهلُ ضَعْفَ عِلْمِ

١٢ وبعدَ ذا أُوْصيك بالثَّباتِ في محفلٍ فيه ذوو الآفاتِ

١٣ ولا تُمارِ قائلاً إنْ قالا بَلْ ذاكِرِ* الأَنْدادَ والرِّجالا

١٤ إنَّ المسائلْ بعضها فشارُ ورُبَّما يَعْرِفُها الحمارُ

١٥ ويَعْرِفُ المسألةَ الغَبِيَّه مَنْ لَيْسَ يَفْهَمْها على السويَّة

١٦ خُصوصَ في مَسْألة تَعمَّى لا أَصْلَ لها* مُعْتَرَفاً يُسمَّى

5 [اشارات يحتاج اليها الربابين]

١٧ أَمَّا الذي يَسَلْ عَنِ المَسافَه أَوْ دِيْرَةِ البرِّ وكلِّ آفَه

١٨ أَوْ عَنْ قياسٍ صادقٍ أَوْ باشِي أَوْ مَطْلَقٍ جَرَّبَنَهُ المواشي

١٩ أَوْ كوكبٍ في حِسْبَةِ النَّيْرُوزِ أَوْ مَوْسِمٍ عِنْدَ ذوي التَمْيِيْزِ

٢٠ أَوِ آستِوَاءاتٍ مُجَرَّباتِ فإنَّهُ الصائبُ فيما يأتي

٢١ والطِّينِ* والحيَّاتِ والأَطيارِ والحوتِ والحشيشِ خُذْ أَخْباري

٢٢ لا تَعْتَبِرْ إلاَّ بِمَا جَرَّبْتَهُ أَوْ أنْ يكونَ الوصفُ* قَدْ حقَّقْتَهُ

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(٦) * ب ، ظ : هذا العلم .

(٧) * ب ، ظ : الهمة ،

** ت : استيقظ تصويب ب ، ظ .

(١٠) * ب ، ظ : هادي .

(١١) * ب ، ظ : يا ابن أمي .

(١٣) * ت : اذكر : التصويب من ب ، ظ .

(١٦) * ب ، ظ : لاصلها .

(٢١) * ت : الطير ، التصويب من ب ، ظ .

(٢٢) * الاصول : او يكن الواصف .

٢٣ أَمَّــا وجــودُ البلدِ والـلَّزَّاقِ* أَشـايـر صحـاحُ في الآفـاقِ
٢٤ وإنْ تَرَ اللزَّاقَ فيه الصُفْـرَه يَكْـذِبُ مَـرَّةْ ويَصِـحُّ* مَـرَّه
٢٥ فَـرُبَّمَـا جَـاءَتْ بِـهِ الحيتـان لِقَفْـرِ* بَحْرٍ نَـازِحٍ لا داني
٢٦ أَمَّـا الذي أَيَـا فتى يُصْطادُ* أَشَـايِـرُ يـعـرفُهـا الـفُؤاد**
٢٧ والـقُـدَمَـاءُ الفُضَـلاءُ الثقـات تَـوَافَقُوا في صِحَّـة الحَيَّـاتْ
٢٨ مِنْ جَاهْ أَحَدْ عَشَرْ لجاهِ خَمْسِ خُصُوص بالهِنْدِ [فَدَتْكَ نَفْسِي]*
٢٩ وإنْ تَرَ في البَحْرِ يَوْماً مَارِزَه مَيِّتَـةً فَلَيْسَ هيْ بـالجـائِزَه
٣٠ لَأنَّ فـيهـا لُـغُـثـاً كَـثِـيـرَه* يَعْلَمُهـا ذو القـدرةِ القـديـرَه
٣١ تَغَيُّـرُ الأَمـوَاهِ في الحـالاتِ يحصلُ مِنْ طلٍّ ومنْ حاياتِ*
٣٢ حتَّى يصيرَ الماءُ مثلَ النُّور فذاكَ لا يَخْفَى على النِحْرِيْرِ
٣٣ وإنْ رَأَيْتَ المـاءَ قد تَغَيَّـرا مازَجَهُ الشُّهْبُ فَمِنْـهُ آحذَرَا*
٣٤ وكلَّمـا جـرَّبْتَ* يـا رُبَّـانُ إعْمَلْ به في كلَّ ما تَعْتَانُ**
٣٥ ثمَّ صفـات البرِّ* والجبـالِ إفْعَـلْ بتجـريبـكْ ولا تُبَـالِ
٣٦ لا تَأْخُذِ* الصفاتِ من كتابي إلَّا صفات الصِّدْقِ والصَّوابِ
٣٧ كَجَـوْزَراتٍ في جَبَلْ جُلْنَـارِ أَوْ بـرِّ مُكْرانٍ بِهَشْتِ لاري

6 [معارف يحتاج اليها المعالمة]

٣٨ وينبـغي مـعـرفـةُ الأَريـاحِ ومُغْلَقِ الـزاخـرِ* والمفتـاحِ

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(٢٣) * ب ، ظ : اجود البلد والارقاق .
(٢٤) * ب ، ظ : ويصدق .
(٢٥) * ت : لتعبر ، البديل من ب ، ظ .
(٢٦) * ب ، ظ : يكون في اصطياد ،
** ب ، ظ : اشارة يغري بها الغوادي .
(٢٨) * زيادة من ب ، ظ ، اسقاط في ت .
(٣٠) * ب ، ظ : لغة كثيرة .
(٣١) * ب ، ظ : حيات .
(٣٣) * ب ، ظ : مارجه الشباب فمنه الحذر .
(٣٤) * ت ، ب : جريت ، التصويب من ظ ، ** ب : في كل ما تعنان ، ظ : في كله تعتان .
(٣٥) * ت : قد صفا ، التصويب من ب ، ظ .
(٣٦) * ب ، ظ : لا تأخذ ، وتأخذ .
(٣٨) * ب ، ظ : البحر .

٣٩ فَغَلْقُـهُ يَمْكُثُ رُبْـعَ عـامِ — مُـدَّةَ تسعينَ مِنَ الأَيَّـامِ
٤٠ إذا بـدا الدَّبرَانُ وَقْتَ الفَجْرِ — ما ينبغي للفُلْكِ فيه* يجري
٤١ حتَّى ترى الفجرَ آستوى بالزُّبْرَه — فَجُـزْ نـواحيـه معـا وغـزرَه
٤٢ مِنْ أَوَّلِ المـاتين يا فطينا — لأَوَّلِ المـاتيـن والتسعينـا
٤٣ فهـذه التسعون فيهـا الغلقـا — حقيقٌ مَنْ جَازَ بِهَا أَنْ يَشْقَى
٤٤ مِنْ مَضَضِ الوَحْشَةِ والتندُّمِ — وكَثْـرةِ الـوسـواس والتـأَلُّمِ
٤٥ أَمَّا الضرورات* فكَمْ منها جرى — كم** جازَ فيها أَحمقٌ وخاطرا
٤٦ وينبغي الحاذقُ* أَنْ لا يَعْزِمَا — في الأَرْبعـانيّةِ قَبْـلَ التَّيْـرَمَـا
٤٧ لأَنَّهـا طـوفـانُهـا شـديـدُ — يُصَدُّ فيها الـرجل* الصنـديدُ

7 [احتياطات ما قبل السفر]

٤٨ إنْ تَجْرِ فيها وبكـلِّ مَوْسِمِ — فَلَمْ يَكُنْ دهرُك* يا مُعَلِّمي
٤٩ إلَّا سَوِيْ العُدَّةِ والمسـاري* — والبحرُ ما كانَ يُلَى [بـ] الجِهَارِ
٥٠ وحُقَّـةِ المَجْرى مَـعَ السُّكَّانِ — وجُمَّـةِ المـركب والفتيـانِ
٥١ وَجَـوِّدِ الآلـةَ قَبْـلَ السَّفَـرْ — كَحُقَّةٍ أَوْ كَقِيَاسٍ* أَوْ حَجَرْ
٥٢ والبَلْدِ والفانوسِ والـرَهْمَانَـجْ — وإنْ تَكُنْ سَافَرْتَ كَمْ مَنْ حَجَجْ
٥٣ وينبغي البُعْـدُ عَنِ الخُيَـلاَءِ — عِنْدَ كمـالِ العِلْم والنُّهَـاءِ
٥٤ فاحرصْ على الجَلْسَةِ للقياسِ — لأَنَّـهـا للعـلمِ كـالأَسَـاسِ
٥٥ والتـربَنَهْ لهـا شـروطٌ* جَمَّـه — لكنَّنـا نَبْـدَأُ** بـالـمُهـمَّـه

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(٤٠) * ب ، ظ : الفلك عليه .
(٤٥) * ت : الضرورة ، التصويب من ب ، ظ .
** ت : اذا ، التصويب من ب ، ظ .
(٤٦) * ب ، ظ : الحادق ، ت : العاقل .
(٤٧) * ب ، ظ : يبدو فيها الراجل .
(٤٨) * ت : دهنك ، التصويب من ب ، ظ .
(٤٩) * ب ، ظ : العدة والشاري ، ت : الجمة والنشناري .
(٥١) * ت ب : قياس ، التصويب من ظ .
(٥٥) * ب ، ظ : كسور ،
** ت : نبدوها ، البديل من ب ، ظ .

الفَصـل الثانـي

في المنازل والأخنان والجري عليهم ومقابلاتهم وعدد أصابعهم في السماء وهي أصابع غير التِّرِفَّات ومعرفة التِّرِفَّا ، وما يتعلَّق بذلك والله أعلم

8 [منازل القمر الشامية]

١ فـأَولاً مَـعْـرفـةُ المـنــازلِ وهـاكها شـاميَّةً يـا سـائلي
٢ النَّـطْحُ* والبُـطَيْنُ والثُّـرَيَّـا والـدَّبَـرَانُ بَـعْـدَهُمْ تَـهَيَّـا
٣ وَهَقْعَةٌ مِنْ بَعْدِها ، والهَنْعَه ذراعُ والنَّثْرَةُ والطَّرْفُ مَعَه
٤ وجَبْهَـةٌ وزُبْـرَةٌ والـصَّـرْفَـه ما في صفاتي قطُّ لَكَ حِرْفَه
٥ وبعْـدَهَـا العَـوَّاءُ والسِّمَـاك هُمْ آخرُ الشاميَّةِ الزواكي

9 [منازل القمر اليمانية]

٦ والغَفْـرُ والـزُّبَـانُ والإكليـلُ أُوْلى اليَمَـانِيَّـةِ* يـا خليـلُ
٧ والقَلْبُ والشَّـوْلَـةُ والنَعَـائِمْ وبَعْـدَهَـا البَلْدَةُ تَـطْلُعْ دائِمْ
٨ ثُمَّ السُّعُـودُ الأَرْبَعَـه والفَـرْغُ يا طال ما فُصِّلْ عليها الشُّرْعُ
٩ أَعْني المُقَدَّمْ والمؤخَّرْ فافْهَمَا وبَعْدَها الحُوْتُ سيبدو فاعلَمَا

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(٢) * ب ، ظ : الشرطين .

(٦) * ت : هم اول اليمانيات ، البديل من ب ، ظ .

10 [حركة المنازل]

١٠ فهــذه المنــازلُ السَّــواري تَقْــطَعُ كُـلَّ الفَلَكِ الــدَّوَّارِ
١١ فكلّمــا غــابَ مِنَ المَنَـازِلْ نَجْمُ لَـهُ ضِدٌّ يلوحُ واصِـلْ
١٢ وكلُّ نَجْمٍ صارَ منهُنَّ الوَتَدْ فضدُّهُ في الأَرْضِ مَعْ أَهْلِ الرَّصَدْ
١٣ وينبغي مَعْــرِفَــةُ الــطوالــعِ والغَـارِبَـاتْ والـوَتَـدِ الـرَّابـعِ

11 [اسماء نجوم اختان الحقة]

١٤ وبَعْــدَ ذا معـرفَــةُ الأَخْنَـانِ بـدورةِ المركبِ يـا إخـواني
١٥ الجـاه والفرقـدُ والنَّعْشُ معًا ناقَتِهِ والبـارِ، قولي فـاسمَعَا
١٦ والكاسرِ* المشهـورِ والسِّمَـاكِ والنجمِ والشَّقَّاقِ** لـلأَفْـلاكِ
١٧ وخَلْفَهَا الجوزاءُ ثُمَّ الشِّعْرَى وبَعْدَهَا الإكليلَ والعقربْ تَرَى
١٨ ثُمَّ الحمـارين مَـعَ السُّهَيْـلِ النيِّـرِ المعتـرفِ الصقيـلِ*
١٩ والمُحْنِثُ الداني لِنَحْوِ القُطْبِ مُؤرَّخٌ عِنْدَ المَلاَ في الكُتْبِ
٢٠ فـهــذه معــرفــةُ الـمشــارقِ والغـربُ ما وَصَفْتُـهُ للحاذقِ
٢١ والحُـرُّ يكفيـه مِنَ الأَشَـايِرْ أَهْـوَنُهَا إِنْ كـانَ ذا بَصَايِـرْ

12 [أسماء نجوم أنصاف الأختان]

٢٢ والـدَّبَـرَانُ يـا فتى والمِـرْزَمْ بِجَـانبِ* الطَّائـرِ أُخَيَّ فاعْلَمْ
٢٣ والدَّبَرانُ شَـامُ والمِرْزمْ يَمَنْ قاسُوْهُمَا مِنْ قبلِنَا أُولو الفِطَنْ
٢٤ يَحْسَبُهُمْ خـابِـرُ هــذا الفنِّ كــلاهمــا إلَّا بفــردٍ* خَـنِّ
٢٥ كَمِثْلِ ما المِرْزَمُ ثمَّ النَّاجِذْ قَدْ كَنَفَا الجوزاءَ في القَوَاعِدْ
٢٦ وفي النَّظَرْ فما* يلي الأَقْطَابْ يزيدُ في الأَبْصارِ والحسابْ

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(١٦) * الأصول : الكاثر .
** ب ، ظ : انشقاق .
(١٨) * ب ، ظ : السفيلي .
(٢٢) * ت : حناحي ، البديل من ب ظ .
(٢٤) * ت : يعود ، البديل من ب ، ظ .
(٢٦) * جميع النسخ : مما .

٢٧ وما يلي الهيرانَ فَهْوَ في النَّظَرْ | أَضْيَقُ أَخْتاناً مَعَ أُلي الفِكَرْ
٢٨ وسائِرُ الأَخْتَانِ في الحُقَّهْ سَوَا | فَهْوَ حِسَابُ الجُزْءِ ما فيه غَوَى

13 [الأزوام الموضوعة بين الأختان]

٢٩ أَمَّا التَّرِفَّا فَهْيَ يا حبيبي | مِنْ مَطْلَعِ العَيُّوقْ الى* المغيبِ
٣٠ ما بَيْنَ خَنَّيْنِ فهو* زامانْ | مُقَرَّرٌ مُذْ قَامَتِ القَرَنَانْ
٣١ ومن مَحَلِّ البارِ للهيرانِ | لكلِّ نَجْمٍ خَمْسَةٌ عِيَاني
٣٢ والمِرْزَمِ* المشهورِ والدَّبْرَانِ | لأَنَّهُمْ** أَنصافُ شَقَّاقانِ***
٣٣ وهكذا العقربُ يا إِخواني | فَهْوَ كَمِثْلِ البار في الأَوْزَانِ
٣٤ والكاسرِ* المشهورِ والإكليلِ | ينقُصُ زاما** فاقتبسْ مِنْ قيلي
٣٥ وإِصْبَعُ الأَقطاب هِيْ ثَمَانِيَهْ | مُعَيَّنَاتٌ لِلأَنامِ وافِيَهْ
٣٦ إِنْ مِلْتَ عَنْهُمْ مَشْرِقاً أَوْ مَغْرِبَا | يزيد زامين على ذا فاحسبَا

14 [الأختان المتقابلة]

٣٧ والسِّلْبارُ ضِدُّهُ الفَرَاقِدُ | والنعْش ضِدٌّ للسُّهَيْلِ واكِدُ
٣٨ أَمَّا الحماراِنِ فضدُّ النَّاقَه | يَسْقُطْنَ في الحِسْبَةِ يا رفاقَه
٣٩ لأَجْلِ قُرْبِ النَّعْشِ والسُّهَيْلِ | منها فهذا واضحُ الدَّليلِ
٤٠ والبارُ والشَّوْلَهْ هُمَا ضِدَّانِ | مُرَبَّعاتُ دورة الأَخْتَانِ
٤١ والقَلْبُ والإكليلُ ضدُّ الواقعِ | والتِّيرُ والرامح لا تنازعِ
٤٢ إِنْ كانَ صَدْرُ الفُلْكِ في الثُّرَيَّا | فَعَجْزُهُ الجوزاءُ يا كميَّا
٤٣ والأَحْمَرَانِ فَهُمَا ضِدَّانِ | لا نَجْمَ بَيْنَهُمْ سوى الهِيْرانِ

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(٢٩) * ت : في البديل من ب ، ظ .
(٣٠) * ت : هكذا . البديل من ب ، ظ .
(٣٢) * جميع النسخ : بالمرزم ،
** ب ، ظ : ليتها ،
*** ب ، ظ : شقاقان .
(٣٤) * الأصول : الكاثر .
** ب ، ظ : زامان .

٤٤ لأنَّـهُ فَـرْدٌ بـغـيـر ضـدٍّ بَيْنَ الجنوبِ والشمالِ يبدي
٤٥ وغيـرُهُ يُمْكِنُ في الكواكبِ يَطْلعُ مِنْ مَطْلَعِهِ يا صاحبي
٤٦ لأنَّـه أشْهَـرُ بَيْـنَ النَّـاسِ فاتَّخَذُوْهُ آسّاً لذا الأَسَـاسِ*
٤٧ أزوامُـهُ تُـذْكَـرُ أَرْبـعـيـنـا قَـدْ عَيَّنوهـا قَبْلَنَا تَعْيِيْنَـا
٤٨ كـرامَـةً لِصِحَّـةِ الحسـابِ والأَصْلُ في [ذا]* حِسْبَةُ الأَقطابِ
٤٩ لأنَّها جامـودُ ذي الأَزْوامِ ثـمَّ دليـل قـبـلةِ الإِسـلامِ

15 [صواب حسبة الأقطاب]

٥٠ هذا حسابٌ يـا أخي خفيّ لا يفتكرْ فيه سوى الذكيّ
٥١ أسدُّ ما في علم أَهْلَ البَحْرِ هذا الحسابُ عند أَهْل الخُبْرِ
٥٢ فـهـذه الأَنْـجُمُ والأخـنـانُ عندَ العَرَبْ تَقْرِيبُ يا رُبَّانُ
٥٣ إيَّاك أَنْ تجري عليها بالنَّظَرْ في موضعٍ فيه مضيقٌ أَوْ خَطَرْ

16 [أصابع الدورة وعدد المنازل والأخنان]

٥٤ ومنـدلُ الأَخْنـانِ والمنـازلِ [لها]* أصابعْ شُهِرَتْ يا سائلي
٥٥ سبعون مَعْ سبعين مَعْ سبعينا وأَربـعُ مَـعْ عَشْرِ يَحْسِبُـونـا
٥٦ وجُمْلَةُ الأَخْنـان فـاعتبـرْهَـا ستُّ عَشَرْ في مثلها اختبرْهَا
٥٧ أَزْيَدُ مِنَ المنازلِ المـذكورهْ بـأَرْبـعٍ أَسقـاطهـا مشهـورَه
٥٨ وكلَّما عاينتَ صَـدْرَ المركبِ في كوكبٍ أُتقنْ بِعَجْزِهْ* واحسبِ
٥٩ مقـابـلاتِ فـافهَمَنْـهُ منّي واعْـرفِ الجـاهَ بـأَيٍّ خَنِّ
٦٠ مـا حاجتي أُطَوِّلُ الأُرجوزَه ذي حسبـةٌ بَيِّنـةٌ مـبـروزَه

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(٤٦) * ب ، ظ : فاتخذوه حسن الأساس . (٥٤) زيادة من ب ظ .

(٤٨) * زيادة من ب ظ . (٥٨) * ت : بفرز ، تصويب ب ظ .

الفصل الثالث

في قواعد الباشيات ومعرفة النيروز العربي والسلطاني [والسنين](*) العربية والرومية والقبطية والفارسية ، واستخراجهم [بما] وافق من الحساب وطالع الفجر وغاربه على حساب النيروز

17 [دوام القياس ستة أشهر]

١	وإنْ تُـرِدْ معرفـةَ البـاشيِّ	فاسمَعْ حديثاً من ثِقَهْ ذكيِّ*
٢	في الغَلَقِ أَوْ مَوْسِمِ الأسْفارِ	أَوْ كلِّ فَصْلٍ كانَ* لا تُمَارِ
٣	إذا رأيتَ يـا فتى بـاشِيَـا	أَوْ مستقِّـلا صـارَ مستـوِيـا
٤	فـاعْلَمْ بـأَنَّ الفجـر مبتـداهُ	وإنْ أتى المغربَ* خُذْ سواهُ
٥	وَدَعْـهُ يمضي ستةُ شهـورُ	حتى تـرى قيـاسـه يـدورُ
٦	بـالفجر فـاعلَمْ أَنَّـه مستقـلُّ	فَقِسْـهُ ستَّةْ أَشْهـرٍ يا رجـلُ
٧	من أوّل الليلِ لآخرِ الليلِ*	أُوْصِيْك في ذلك يا خليلي

18 [منازل القمر في القياس]

٨	لأنَّ كـلَّ سَنَـةٍ آثْنَـا عَشَـرْ	شَهْراً مَعَ كلِّ الملا مُحَـرَّرْ

(*) زيادة من ب ظ .

(١) * ب ، ظ : ثقة ماشي .

(٢) * ب ، ظ : فيه .

(٤) * ت : واترى المعزر ، التصويب من ب ظ .

(٧) ب ، ظ : من آخر الليل لأول الليل .

٩ حسابُها القَمْرِيْ ثلاثُ مـايَه | أَرْبَـعٍ وَخَمْسـون لهـا وفـايَـه
١٠ يقـطعُهـا العشـرون والثمـانِ | لكلِّ نجمٍ نَوْءُ* في الزمانِ
١١ فَـنِصْـفُـهَـا أَوانُـهُ الـنـهـارُ | في الليلِ لا تدركُهُ الأَبْصارُ
١٢ ونصفُهـا يُهْـدَى بـه الرُّبَّـانُ | في ليلِهِ* لكن بهـا نقصـانُ
١٣ مـنـزلـتـان دائـمَ الأَوقـاتِ | عن صَوْرم* البيضاء حين ياتي
١٤ والصافياتُ يا فتى آتنا عَشَرا | عنديَ في كلِّ أوانٍ فاذْكرَا*
١٥ فسوفَ أَذْكرْها* على الكمالِ | من أَوَّلِ النيروزْ الى الزَّوالِ
١٦ وأَذْكـرُ الـكـواكبَ الـلواتـي | هُمْ رَحَـوِيَّاتٌ* على الثبـاتِ

19 [النيروز العربي]

١٧ أَوَّلَ ما يسيحُ نيروزُ العَرَبْ | فاعلمْ بأَنَّ النجمَ بالفجر غَرَبْ
١٨ وطـالِعُ الفجـرِ هُـوَ الإكليـلُ | والمستقِـلُّ الأَسَـدُ النبيـلُ
١٩ أَمَّا السعودْ تَحْتَ القدمْ لا تدركُه | بعدَ انقضا خمسِ ليالي اتركه
٢٠ واحسبْ لكلِّ منزلـهْ نوءهـا* | تُقيم في مـوسمهـا مجـراهـا
٢١ من الليـالي* أَرْبعـاً وتسعـا** | ما في حديثي من خلافٍ قَطْعَا
٢٢ فجملةُ المنـازلِ العشـرينـا | مـع الثمـاني لهمْ ستـونـا*
٢٣ يـوماً ويلحَقْهـا ثلاثُ مـايـه* | وأَربعـهْ فـوقهمـا عـلانيـه
٢٤ فـإنَّ هـذا العـام يـانَـوَّائي* | ما فيه منْ شكٍ** ولا مراءِ

(١٠) * ب : يوفي ، ظ : بوم .
(١٢) * جميع الأصول : ليلة .
(١٣) * ت : مورم التصويب من ب ظ .
(١٤) * ت : ندكر ، التصويب من ب ظ .
(١٥) * ب : ادركها .
(١٦) * ت : رجوعات ، البديل من ب ظ .
(٢٠) * جميع الأصول : سواها .
(٢١) * ب : من الليل ، ظ : من مرّة الليل .
** ت : سبعا . التصويب من ب ظ .
(٢٢) * ت : لهم يستوين ، التصويب من ب ظ .
(٢٣) * ظ : كما قال ماية .
(٢٤) * ت : للسواء ، ظ : بلى نواء ، ب : يانواء ،
** ت : شط . التصويب من ب ظ .

20 [السنة القمرية والسنة الشمسية]

٢٥ وذاك عامٌ عربيٌ التقويمِ وَضَعْنَهُ الحسَّابُ* مِنْ قديمِ
٢٦ فالسَّنَةُ الناقصةُ القَمْريَّه والزائده تعرفُ بالشمسيَّه
٢٧ والقبطُ والفرسُ معا والرومُ عامهمُ يزيدُ عَنْهُمْ يومُ
٢٨ والفرقُ فيما بينهمْ يسيرُ لا يمتري فيه فتى خبيرُ

21 [بدء السنين النيروزية]

٢٩ ومن شهورِ الفرس أوَّلْ يومِ فَرْوَرْدِيَنْ* مَعْ أوَّلِ التقويمِ
٣٠ والخامسُ العشرونَ مِنْ هَتُورا هُوَ أوَّلُ النيروزِ كُنْ خبيرا
٣١ للعربيْ* يا صاح هوْ والهندِي وَغَيْرُهُمْ فافهم [عُطِيْتَ]** رشدِي
٣٢ لم يَبْقَ نيروز سوى السلطاني يدخلْ دخولَ الشمس في السرطانِ*
٣٣ أمَّا ذوو الأزياج* والحِسَابِ عندهمُ النيروز بالصوابِ
٣٤ بعدَ أَحَدْ يا صاحِ والعشرينا ثاني شهورِ الرومِ في تشرينا
٣٥ ويطلع* الإكليلُ تاسعْ عَشَرْ من ذلك الشهر** يُرَى بالجَهَر***
٣٦ وعندنا نيروزُنَا* ثالثْ عَشَرْ إكليلنا بالفجر بهذا الشَهَرْ**
٣٧ فهذه قواعد كلِّيَّه في الأُسِّ إذ تحسبْ لها الروميه

★ ★ ★

٣٨ بالله يا زيَّاجُ إنْ زاغَ الفَلَكْ في غير عصري فأصلحوا مافيه شكْ
٣٩ ولا تغيِّر باقيَ العلومِ في جملةِ الحساب والرسومِ
٤٠ إنَّ هذه حاويةُ المجرِّبِ لا شكَّ فيها عند كلِّ العَرَبِ

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(٢٥) * ت : وضعته للحساب ، ب : وضع للحساب ، ظ : وضع الى الحساب .
(٢٩) * ب ، ظ : بروزماه . ت : فردودما .
(٣١) * ت : فالعربي ، التصويب من ب ظ ،
** زيادة من ب ظ .
(٣٢) * ب ، ظ : وللسرطان .
(٣٣) * ب ، ظ : والأرياح .
(٣٥) * جميع الأصول : وينزل ،
** ب ، ظ : القمر ،
*** ت : الفجر ، البديل من ب ظ .
(٣٦) * ب ، ظ : ينزل ،
** ب ، ظ : اكليلنا الفجر بهذا الفجر .

الفصـل الرابـع

في معرفة الباشِيَّات ومواسمها [وشهورها وثبوت](*) قياسها وزواله على حساب النيروز وذكر ما يتعلق بصعود الجاه ونزوله وصعود الفراقد ونزولها ، [وما يتعلق بذلك](*)

22 [القياس الأصلي]

١ وإنْ تَرَ النَّيروزَ مِنْه قَدْ مَضَى	عشرونَ يوماً بَلْ أقَلُّ وآنْقَضَا
٢ يصحُّ في البحرِ القياسُ الأَصْلِيْ	الصادقُ المشهورُ في ذَا الشغلِ
٣ وينْقضي النِّصْفُ مِنَ الكانونِ	أعني بـهِ الأوَّلَ بـالتَّعْيينِ*
٤ يَـوْمَئـذٍ وتستقـلُّ الصَّـرْفَـه	سَيِّـدَةُ المَنَـازلِ المُعْتَـرَفَـه
٥ وتَعْتَدِلْ في المَشْرِقِ الفـراقِدُ	حينئـذٍ يغيبُ عَنْكَ النَـاجِـدُ
٦ ولَمْ يَكُنْ للجـاهِ مِنْ باشِيٍّ	في ذلكَ الموسِمِ يـا أُخَيٍّ

23 [قياس الواقع والتير]

٧ وقِسْ على الواقعِ ثمَّ التِّيرِ	في ذلك الموسِمِ بالتحريـرِ
٨ لأوَّلِ الـمـائـةِ والتـسعـينـا	عيِّنْتُهُ لَـكْ* قَبْـلَ ذا تعيينـا

(*) زيادة من ب ظ .

(٣) * ب ، ظ : بلغيني .

(٨) * ظ : من .

٩ قِسِ المُرَبَّعْ ما خلا ذا النَّوَّا | إذا تَـوَسَّطْنَ نُجُـومُ العَـوَّا
١٠ وأَنْجُمُ العـوَّا بغيـرِ بـاشِي | أيضاً ولا لِلأَعْزلِ الطَّيَّاشِ*
١١ دلـيـلُهُ يَـظْهَـرُ لـلزُّبَّـانِ | منْ باشيٍ* النَّثرةِ للزُّبَـانِ
١٢ وللمـربَّـعْ أيُّهـا الـمهـذَّبْ | جُمْلَةْ قياساتٍ لهـا* مجرَّبْ
١٣ لكنَّني أَذْكُـرُ مـا اَسْتَعْمِـلاَ | ثمَّ يفيـدُ الطالبينَ الفُضَـلاَ
١٤ فـأوَّلُ القياسِ في التَّحْتـانِيْ | وبينَـهُ واليمِّ والـفـوقـانِيْ
١٥ أرْبَعْ أَصَابـعٍ بأرضِ الحـدِّ | زاوِيَـةُ العَـوَّا عليـه تَهْـدِي
١٦ وبعدَ ذا إذا اَسْتَقَلَّ الأَعْزَلُ | والأَوْسـطانِ اَعْتَدَلاَ يـا أمـلُ
١٧ فهُمْ بأَرْضِ الحدِّ خَمْسَةْ زاهي | والكـلُّ يَنْقُصُ لِـزِيَـادِ الجـاهِ
١٨ لا زالَ يَنْقاسُ اَعْمَلُوا عليهِ | وفي الحجـازِ ما لـهُ شبيهِ*
١٩ بيـانُ هـذا كلُّهُ اَخْتـراعي | هـديَّـةٌ* مـنْ مَلِكٍ مُـطَاعِ
٢٠ وليسَ يـرقى لجميع هـذا | إلَّا الفـطينُ الحاذقُ الأُستاذ

25 [صعود الجاه ونزوله]

٢١ أمَّـا صعـودُ الجـاهِ والنُّزُولُ | أرْبَعْ أَصابعْ صحَّ ما أقُولُ*
٢٢ وهـكـذا يميـلُ لـلهيـرانِ | بـلا زيـاداتٍ ولا نُقْصَـانِ
٢٣ ولا أَشَـارَ الأوَّلـونْ لِـسِـتٍّ | في الفَرْغِ ليسَ ذاك من نعتي*
٢٤ وغـايةُ الميـلِ الى المَشَارِقْ | إذا اَسْتَقَلَّ الشَّولُ يـامُـوَافِقْ
٢٥ وغـايـةُ الـعـلوِّ والـصُـعُـودِ | إذا اَسْتَقَلَّ الفَرْغُ بـالتوكيـدِ

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(١٠) * هذا البيت ساقط من ب ظ .
(١١) * ب ، ظ : من كل باشي .
(١٢) * ت : معا ، البديل من ب ظ .
(١٨) * شبيه : قبلها من محذوفة .
(١٩) * ب ، ظ : هداية .
(٢١) * ب ، ظ : ماصح اقول .
(٢٣) * هذا البيت ساقط من ب ظ .

٢٦ لأَنَّ دائمـاً لـه آنقـضَـا* ومـثـلُهُـمْ ميخ الجُدَيِّ أيـضَـا
٢٧ وغـايـةُ الميـلِ الى المغيبِ إذا آسْتَقَلَّ الهَقْعُ* يا حبيبي
٢٨ وغايةُ الهُبُوطِ في ذا الحينْ أَعْني آنْتِصَابَ الصَّرْفَةِ يا حُسَيْنْ*
٢٩ يصيرُ في الجاهِ* مِنَ الأَصَابِعْ إِثْنَانِ نَاقِصْ** لا تَكُنْ مُنَازِعْ
٣٠ وآعْلَمْ خليلي أَنَّ لِلْفـراقِـدِ الْإِعْـتِـدَالِـيـنِ* بِـلاَ زَوَائِـدِ
٣١ أَخْبِرْ بهذا* في جميعِ الدنيَا وفيـه يَطْلُعْنَ همـا ويـأْتِيَـا
٣٢ وَيَغْـرُبـانِ الفـرقـدان النَـزْعِ* مُعْتَدِلَيْنِ في آنْتِصَابِ الفَرْغِ

26 [البعد بين القطب وبعض النجوم]

٣٣ وبينَ نَجْمِ الجاهِ والقطبِ قَدَرْ أصابعُ آثْنَتَانِ خُذْ منِّيْ الخَبَرْ
٣٤ يحسبُهُ الغِرِّيـرُ نَجْمَ القُطْبِ لأَنَّـه أَشْهَرُ مـا في القـربِ
٣٥ دليلُهُ أَظْهَرُ* منْ شَمْسِ الغَدِ بعدَ آنْتِصَابِ البَطْنِ نَقْصُ الفَرْقَدِ
٣٦ وبينَ ذي القطبِ وبينَ الفَرْقَدِ ثَمانْ أَصابِعْ قدْ وَرَدْ ياسيدي*
٣٧ وبينَ ميخِ الجاهِ والقُطْبِ عَدَدْ ثَمانْ أَصَابِعْ في القياسِ قَدْ وَرَدْ

27 [ترتيب الميخ والجاه وقطب الجاه والفرقدين]

٣٨ والميخُ والجاهُ وقُـطْبُ الجاهِ والفرقدانِ فَـرْدُ حَرْفٍ* زاهي
٣٩ مِنْ أَحْرُفِ الهِجَاءِ وهْيَ اللَّامْ معطفها* القُطْبُ فَكُنْ عَلَّامْ**
٤٠ ورأْسُهـا الميـخُ وأَمَّـا ذيلُهَـا الفـرقـدانِ* هكـذا دليلُهَـا

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(٢٦) * ب ، ظ : لأنه دوقاله تقضا .
(٢٧) * الأصول : الهنع .
(٢٨) * ب : ياحين .
(٢٩) * ب ، ظ : الزام ،
** ب ، ظ : احفظ .
(٣٠) * ب ، ظ : لها اعتدالين .
(٣١) * ب : احداهما ، ظ : احداهما ذا .
(٣٢) * ت : فرع ، البديل من ب ، ظ .
والخطأ المزدوج واضح .
(٣٥) * ب : وليلة اشهر ، ظ : دليله اشهر .
(٣٦) * ب ، ظ : سبع اصابع ونصف يا مبتدي .
(٣٨) * ب ، ظ : فمُرٌ وحرف ،
(٣٩) * الأصول : مطلعها ،
** ب ، ظ : غلام .
(٤٠) * ب ، ظ : الميخ اذا ما ذيلها للفرقدين .

٤١ إنْ شئتَ أنْ تَخُطَّ باليمين   أوْ باليسارِ إنَّ ذا تمكين
٤٢ لكنَّها معَ آنْتِصابِ الفَرْغِ   تصيرُ خطّاً بيِّناً في الشُرْعِ

28 [ترتيب الميخ والجاه والقطب]

٤٣ والميخُ والجاهُ وذا القطبُ أُلِفْ   مُعْتَدِلٌ مقوَّمٌ لَمْ يَنْحَرِفْ
٤٤ سَمَّوْهُ مِيْخَ الجاهِ أُولُو اللبِّ   لأنَّه مسامرٌ* للقُطْبِ
٤٥ وحينَ يأتي لغروبِ الفرقدِ   يغيبُ ذا معَ الحمارينِ* آهْتَدِ
٤٦ وفي الطلوعِ يطْلُعَانِ جَمْعَا   ويركبا الأقطاب في وقتٍ معا
٤٧ ثمَّ الزبانان لَهُمْ يماشِي   دليلُهُ نصفُ آصْبَعٍ في الباشِي
٤٨ أمَّا سُهَيْلٌ فَهُوْ رقيبُ الذابحِ   إنْ غابَ ذا يَطْلُعُ ذا يا ناصحِي
٤٩ إنْ يَرَ ذا الجاهَ * ولَمْ يَصْدُقْ مَعَه   أعْلَى وأسْفَلْ منْ فَرَاقِدْ أرْبَعَه
٥٠ فيا لَهَا منْ حَرَكاتٍ عارِضَه   بَسطْتُ بَعْضَهَا وبَعْضُ غامِضَه
٥١ لأنَّني لَمْ أرَ في زمـاني   مُسَاعِداً في ذا على المَعَاني

29 [باشِيُّ الزُّبَانى]

٥٢ وإنْ مَضَتْ سبعونَ حَلَّ الفَجَرْ*   سَعْدُ بُلَعْ خُذْ مِنْ صحيحِ الخَبَرْ
٥٣ وآعْتَدَلَ المَعْقِلُ والظَّليمُ   والفرقَدُ الكبيرُ يَسْتَقِيمُ
٥٤ على سَنَامِ الجَدْيِ والباشِيُّ   نصفُ آصْبَعٍ فَآفْهَمْهُ يا ذكيُّ
٥٥ أمَّا الحماراتِ فَهُمْ بالحدِّ   خَمْسُ أصابعْ قطُّ لا تعدِّي
٥٦ فَمِنْ شُبَاطٍ خامسُ مُدِيْمُ*   يمضي بذاك النَوِّ يا نديمُ
٥٧ أمَّا الزُّبَانُ فَهوَ مُسْتَقِلُّ   والطَّرْفُ في الغربِ لهُ مَحَلُّ
٥٨ من ذلك الحينِ تُرى الفراقدُ   تشفُّ والجَدْيُ عَنِ الما صاعِدُ

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(٤٤) * جميع النسخ : سامر .
(٤٥) * ب ، ظ : لك الحمارين .
(٤٩) * ب ، ظ : الجاهل .
(٥٢) * ت : نفر .
(٥٦) * ت : قديم ، البديل من ب ، ظ .

٥٩ دوامُـهُ للمـائتينِ يَـحْسِبُـوا فـوقَهُمَا شهـرُ زمـانٍ جَـرَّبُـوا
٦٠ وٱعْلَمْ بأنَّ الجاه مِنْ ذا المُسْتَقَلْ يَسْتقبلُ الباشِيَّ للفَرْغِ وسَلْ*
٦١ ومنزلاتُ الشامِ في ٱسْتِقلالِهَا لا يَحْدُرُ الجاهُ* ولا يَرْقَى لَهَا
٦٢ وباشِيُ الشَّوْلَةْ* إليكَ الوَصْفُ في غيرِ ذا النوِّ ٱصْبَعٌ ونصْفُ

30 [باشِيُّ منزلة النَّعائم]

٦٣ وإنْ مَضَتْ منه شهورٌ أَرْبَعه ثمَّ ثلاثَهْ قُـرِّرَتْ زِدْهَا مَعَـه
٦٤ يَطْلعُ بالفجرِ المُؤخَّرْ دائمَـا ويستقلُّ الجَدْيُ حتماً لازمَا
٦٥ وفي حســابــاتِ المؤرِّخينـا آخـرُ آذارٍ فَـنِـعْـمَ حـيـنـا
٦٦ ترى الـرَّيَاحيـنَ* مَعَ الأزهارِ في ذلك الفَصْلِ فَخُذْ أخباري
٦٧ ثمَّ يصيـرُ الفرقـدُ الصغيـرُ منَ المغـاربْ تَحْتَـهُ الكبيـرُ
٦٨ يكونُ باشي* الجاهِ إِصْبَعْ ونصْفَا لِمَايَتَيْنْ وتِسْعِينَ ذا الوَصْفَا**
٦٩ وفي حِسَابِ آخرٍ خُذْ قولي باشيْ ٱصْبَعَين مُسْتَقَلُّ الشَّوْلِ
٧٠ ويستقِـلُّ بَعْدَ ذا النسـرانِ ينيف ربعـاً رَهُمَا بـالعَيْنِ*
٧١ بـاشِيْهما ٱصْبَعَـانِ بَلْ يـزيدُ ضـدُّهـا البـاجسُ يـا حميـدُ
٧٢ لأنَّ يـا رُبَّـانُ كـلَّ بـاشِي اليـه ضـدٌّ والـرَّقيبُ مـاشِي
٧٣ ذكرتهُ في عرضِ هذا الفَصْلِ لأنَّـه عِـلْمٌ حقيقٌ أصـلي*
٧٤ وقالَ بعضٌ إنَّ نَسْرَ الـطائرْ يزيدُ نصفاً كُنْ بهذا خَابِرْ

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(٦٠) * ب ، ظ : وزل .
(٦١) * ب ، ظ : لا ينحدر الجاه ت : منحدر الجدى .
(٦٢) * ب ، ظ : القلب .
(٦٦) * ت : الذي حيا ، البديل من ب ، ظ .
(٦٨) * ت : ثم يكون . البديل من ب ، ظ ،
** ب ، ظ : للمايتين والتسعين هذا الوصف ، ت : من مايتين وتسعين هذا الوصف .
(٧٠) * ب ، ظ : بنيّف تراهما ، ت : ينيف ربعاً تراهما بالعين .
(٧٣) * ب : املي ، ظ : جزلي ، وفوقها املي .

31 [باشِيُّ سَعْدِ بُلَع]

٧٥ أَوْ كانَ خَمْسَةْ أَشْهُرٍ ونِصْفَا	فالفَجْرُ بالبطينِ هاكَ* الوَصْفا
٧٦ والـدَّبَـرَان ثـمَّ والـعَـيُّـوقْ	يُـطَالِعَـانِ الشَّمْسَ بـالتَّحْقيقْ
٧٧ وفي حسابْ إن رمتَ* من أَيَّارِ	سبعٌ حِسَابُ الحـاذقِ المهَّارِ
٧٨ وذلـك الحينَ يكونُ الفـرقدُ	مواسي* الجاه عليـه آعْتَمِدُوا
٧٩ لكنَّما* الجاهُ بشطٍّ** الشرقِ	لأنَّ هذا*** مُبْتَدا خُذْ صدقِي
٨٠ والمستقلُّ يا أخيْ سَعْـدُ بُلَعْ	وفيــه قــولان وكــلٌّ يُسْتَمَـعْ
٨١ كَمِثْلِ ما في ضِـدِّه* قولانِ	أعني لــك النَّثْرةَ بــالعِيَـانِ
٨٢ والبعضُ قالَ هُوَ سَعْدُ الذَّابحِ	بيَّنْتُــهُ لكـلِّ عقــلٍ راجـحِ
٨٣ حـينئــذٍ منــازلُ الجنــوبِ	تظهرُ في السَّما* بلا مغيبِ
٨٤ ومنــزلاتُ يـا أخي الشـامِ	جميعُها في الأرضِ بالتَّمامِ*
٨٥ إلَّا نجوماً قد بَدَتْ من الحَمَلْ	كالشَّرَطينِ مَنْ تُردْ عَنْ ذا فَسَلْ
٨٦ يكونُ باشي* الجاهِ يا سعيدُ	ثــلاثَ لا تَنْقُصْ ولا تــزيــدُ
٨٧ يـدومُ لَكْ قيـاسُهُ يـا صـاحِ	الى ثـلاثْ مائةِ بالإيضـاحِ
٨٨ أيضـاً وعشـرونَ مِنَ الليـالي	وفــوقَـهُمْ ثــلاثُ لـلكمــالِ

32 [باشِيُّ الفَرْغِ المُقَدَّم]

٨٩ وإنْ يَكُنْ مـائِتَانِ يـا هُمَـامَـا	أيضـاً ويومٌ فـافْهَمِ الكلامَـا
٩٠ والفجـرُ بـالهَقْعَـةِ بـآلصـوابِ	وآلمُسْتَقِـلُّ آلْفَرْغُ بـالحِسَـابِ
٩١ والفـرقـدانِ في قيـاسٍ فـردِ	ثمانِيَهْ صـاروا برأسِ الحـدِّ

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(٧٥) * ب ، ظ : هناك .

(٧٧) * ب ، ظ : رحو مع .

(٧٨) الأصول : مساوي .

(٧٩) * ت : لكنها البديل من ب ، ظ ،

** ت : شاطي ، البديل من ب ، ظ ،

*** ب ، ظ : من ذا .

(٨١) * ت : هذه ، البديل من ب ، ظ .

(٨٣) * ت : الحصراء التصويب من ب ، ظ .

(٨٤) * ب ، ظ : بالدوام .

(٨٦) * ت : يا اخي ، ب ، ظ : بباشي .

٩٢ والسِّلْبارُ فوقَ وَجْهِ الماءِ　قياسُهُ إِصْبَعْ بلا مراءِ
٩٣ والميخُ فوقَ الجاهِ لا يزولْ　كلاهُمَا يستقبلُ النزولْ
٩٤ فباشِيُ الجاهِ أَصَابعْ تُحْصَى　أَرْبَعَةٌ والجا صارَ الأقصى
٩٥ وباشِيُ الصَّرْفَةِ ضدٌّ هذا　ذا هادمُ البَاشِيْ وهذا شاذًا*
٩٦ قياسُ ذا تَلْقَاهُ بالفجرِ　نصفَ حُزَيْرَانٍ رُوِيْ في الذِّكْرِ
٩٧ أيضاً وسَهْمُ القوسِ والفراقِدْ　في ذلكَ الموسِمْ تَرَاهُ واكِدْ
٩٨ حَدْ عَشْرَةَ الفَرْقَدْ براسِ الحدِّ　عندَ آعْتِدَالِ السَّهْمِ لا تعدّي
٩٩ وبَيْنَهُنَّ اختلافٌ سهلُ　لم يَحْمِلِ الفَصْلَ فَيَأْتي الفَصْلُ
١٠٠ والسِّلْبارُ ثُمَّ نَجْمُ النَّسْرِ　يُمْكِنُ أَنْ يقيسَهُمْ ذو الخُبْرِ
١٠١ خصوصَ في سافلٍ يا إخواني　فأفْهَمْ لِنَظْمي وَآفقهِ المعاني
١٠٢ قياسُهُمْ يا صاحِ عندي أَرْبَعَه　براسِ حَدٍّ هَاكَ* نُصْحي آسْمَعَه
١٠٣ والنَّسْرُ في الغروبِ ثمَّ المُحْنِثْ　مستقبلُ طلوعَهُ لَمْ يَلْبَثْ
١٠٤ وكلَّما غاصَ مِنَ الجاهِ آصْبَعْ　ترى هناكَ السِّلْبارَ يَرْفَعُ
١٠٥ والواقعُ الدرِّيُّ لن يُغَيَّرَا　أَرْبَعْ أصابعْ قطُّ ما فيه مِرَا
١٠٦ أمَّا براسِ الحدِّ قِيْسَ المُحْنِثُ　أَرْبَعَةً زلَّ* بِهِ مَنْ يُحْنِثُ
١٠٧ لأنَّه في غايةِ العلوِّ　في الأُفْقِ لَمْ يَحْتَجِ للدنوِّ*
١٠٨ حتَّى يغيبَ النسرُ يا خليلي　يستقبلُ المسيرَ* للأُفُولِ
١٠٩ وإِنْ ترى الواقعَ اصْبعينِ　فالسِّلْبارُ القطبُ رأيَ العينِ
١١٠ كذالك* المَعْقِلُ والظَّلِيمُ　ثمَّ المُرَبَّعُ أيُّها العليمُ

(٩٥) * لغة محلية في شاد .
(١٠٢) * ب ، ظ : هناك .
(١٠٦) * ت : ذلك ، ب ، ظ : زلل .
(١٠٧) * هذا البيت مقحم في النص وبحذفه يصبح عدد أبيات هذا الفصل صحيحاً وموافقاً لما جاء في البيت ٩٩ من الفصل الحادي عشر من الحاوية .
(١٠٨) * الأصول : السير .
(١١٠) * ت : فذاك ، التصويب من ب ، ظ .

١١١ إذا آسْتوى قياسُهُمْ وآعْتَدَلُوا فهمْ على القطبِ الجنوبيْ نَزَلُوا
١١٢ والسِّلْبارُ قِسْمُهُ ثمَّ النَّسْرَا عندَ طلوعِ التِّير تَلْقَ البرَّا*
١١٣ لأنَّهُمْ أَقْرَبُ منْ سُهَيْلِ للقُطْبِ الجنوبِ يا خليلي
١١٤ والسلِّبارْ أَبْعَدْ مِنَ المُرَبَّعِ لِلْقُطْبِ أعني لِلْجنوبيْ فآسْمَعِ
١١٥ دوامُهُمْ كلُّهُمُ يا صاحِ لأوَّلِ النيروزِ والأَسْياحِ*
١١٦ وكلُّ هذا ينقضي جميعَا كُفِيْتَ شَرَّ الجَهْلِ والتصريعَا
١١٧ ثمَّ ترى سَعْدَ السُّعودِ مستقلْ منْ قَبْلِ ذا الباشيْ بنوٌّ قد كملْ*
١١٨ باشيُّهُ ثلاثةٌ ونصفُ في حسابِ جُزْر حَسَنِ الوصفِ*
١١٩ والحوتُ والناقة يا أخِيْ آسْمَعِ باشيُّهُمْ أَرْبَعْ مِنَ الأَصابعِ
١٢٠ آخِرُ بَاشيْ* في اليَمَانِيَّاتِ اِعْمَلْ عليه وآسْتَمِعْ صفاتي

33 [باشِيُّ الشرطين]

١٢١ وإنْ مَضَتْ مَايْتَانِ مَعْ خمسينَا وفوقَها ثلاثةٌ تمكينَا
١٢٢ فالطَّرْفُ في الفَجْرِ* بلا مُحَالِ أَمَّا البُطَينُ صارَ في آسْتقلالِ
١٢٣ فيستقيمُ الجاهُ فوقَ الفرقدِ باشيُّهُ ثَلْثَهْ ونصفُ آقْتَدِ*
١٢٤ وأَوَّلُ النَّعْشِ* وَثُمَّ الفرقدِ هُمْ خَمْسَةٌ بالحدِّ فافْهَمْ وآهْتَدِ
١٢٥ ويَطْلُعُ السُّهيلُ بالأَطْواحِ من شاطيءِ الجنوبِ كالمصباحِ
١٢٦ وذلك النَّوُّ يكونْ في آبِ سَبْع لُيَيْلاتٍ على الحسابِ
١٢٧ وذا الذي شَرَحْتُ يا عزيزي يبقى* لِشَهْرين مِنَ النَّيروزِ

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(١١٢) * ب ، ظ : البشرا .
(١١٥) * ب ، ظ : السياح .
(١١٧) * ب ، ظ : بنوّ افل .
(١١٨) * ب ، ظ : في حساب الجزر مستحسن الوصف ، ت : في حساب الحورا اكثره في نظمه والنثرا .
(١٢٠) * ت : اخي تاتي ، التصويب من ب ، ظ .
(١٢٢) * ب ، ظ : فالفجر في الطرف .
(١٢٣) * ب ، ظ : ونصف بالدلايل اقتد .
(١٢٤) * ب ، ظ : النسر .
(١٢٧) * ب ، ظ : ليفي .

١٢٨ وآعْلَمْ بأَنَّ يا أَخي ذا المستقلْ* رقيبُهُ الزُبانُ ما فيه خَلَلْ
١٢٩ حَذْرك في النتخةِ في الفراقِدْ فيما خلاهنَّ القياسُ وارد
١٣٠ إنَّ الفراقدْ كلَّها تقريبُ إلَّا مَعَ البطينِ فَهْيَ تُصِيبُ*

34 [باشِيُّ الدَّبَران]

١٣١ وفي الثلاثْ مائة ياخِيْ إلَّا عشرينَ فالدَّبْرَانُ قَدْ تعلَّا
١٣٢ بالفَجْرِ والفَجْرُ اليه الزُّبْرَهْ باشيُّه ثَلْثُ مَعَ ذي الفكرَهْ*
١٣٣ يومين في أيلول إحْسِبْ هذا* ففيه أَرْياحُ الصَّبا تحاذا**
١٣٤ بينَ هراميزَ وبَيْنَ الباطِنَه ومِنْ عَدَنْ لفرتكٍ كُنْ فاطِنَه
١٣٥ ثُمَّ ترى المُحْنِثَ في الأفولِ فَقِسْ عليهِ هُوَ وَالسَّهيلِ
١٣٦ من قبل ذا النَّوْ لاتَكُنْ ناسِي* إذا آسْتقلَّ النجمُ فوقَ الراسِ
١٣٧ كلٌّ يصيرُ يا فتى آصْبَعَيْنِ أيضاً ونصفاً تَرَهُ بالعينِ
١٣٨ في جاهْ أَحَدْ عَشْرَهْ بلا محالِ إنْ زِدْتَ غاصَ الجاهُ بالدَّلالِ
١٣٩ إصْبَعْ بإصْبَعْ في* العَرَبْ والهندِ نعمَ قياسٌ قِيْسَ هذا عندي
١٤٠ وَيَعْتَدِلْ يا صاحبي الزُبانِي* مَعَ السُّهَيْلِ فافهَمِ المَعَانِي**
١٤١ في ذلكَ الموسمِ غيرَ خافي وهُمْ براسِ الحدِّ سِتَّهْ وافي
١٤٢ الى ثمانين* وياتي المَغْرِبُ دونَ قياساتهمُ مُجَرَّبُ

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(١٢٨) * ب ، ظ : المستقبل .
(١٣٠) * ب ، ظ : الا مع البطين والمرزم تصيب .
(١٣٢) * ت : باشيه يلقى مع ذي الكفره . البديل من ب ، ظ .
(١٣٣) * ب ، ظ : ايضاً احسب ،
** ب ، ظ : هذاك فيه ارياح الصبا لا تقرب .
(١٣٦) * ب ، ظ : لا يكون باشي .
(١٣٩) * ب ، ظ : برّ .
(١٤٠) * ب ، ظ : الدنول . والزباني امالة الزباني .
** ب ، ظ : ما اقول .
(١٤٢) * ب ، ظ : المائتين .

35 [باشِيُّ المِرْزَم]

١٤٣ وفي الثلاثمائةِ ثمَّ خَمْسُ — فالفجرُ* بالعوَّاءِ أمَّا الشَّمسُ
١٤٤ في الغَفْر وهْوَ أوَّلُ الميزانِ — في مُدَّةِ الدهورِ والأزْمانِ
١٤٥ والمستقِلُّ الهَنْعُ ثُمَّ المرْزَمْ — باشِيْ آصْبَعَيْنْ ورُبْع فيهِ* فاغْنَمْ
١٤٦ والفرقدُ الكبيرُ كُنْ عليمَا — يبقى على الآخرِ* مُسْتَقِيمَا
١٤٧ فَقِسْهمَا بالحدِّ سَبْعَةْ مُحْكَمَه — وهْوَ قياسٌ جَيِّدٌ فالْزَمَه
١٤٨ وَقِسْ عليهِ أشْهُراً ثَلاثَه — أيضاً ونصْفَ مايةٍ علامَه*
١٤٩ أعني مِنَ النَّيروزِ ثمَّ ينقضي — ويستوي سواه فاحْسِبْ واحْفَضِ*
١٥٠ بَلْ يَسْتوي هذا وفي أيلولِ — ثمانِ مَعْ عشرينَ فأسْمَعْ قولي
١٥١ وبينَ ذا الباشِّي والدَّبرانِ — يَعْتَدِلُ البارُ مَعَ الذُّبَّانِ
١٥٢ على سَنَامِ القُطْبِ بالشمالِ — والبارُ للجاهِ سَيَبْقى عالي
١٥٣ مُعْتَدِلاً يا صاح مَعْ ذُبَّانِهِ — يا خيرَ باشيْ قِسْهُ في أوانِهِ
١٥٤ باشيْ آصْبَعَينِ يا أخِيْ ونصفِ — فالميخُ والجاهُ سوا خُذْ وصفي

36 [باشِيُّ الذِّراع]

١٥٥ ويطلُعُ الأعزلُ وَقْتَ الفَجْرِ — على ثَلَثْ مايَهْ وثُلثي* شَهْرِ
١٥٦ وذلكَ الحينَ الذِّراع مُسْتَقِلْ — باشيْ آصْبَعٍ ونصفِ في ذاكَ المحَلْ
١٥٧ بَعْدَ مُضيِّ أحَدَ عَشَرَ يَوْمِ — مِنْ أوَّلِ التِّشْرين في التقويمِ
١٥٨ الى آرْبَعَهْ أشْهرٍ يا خليلي — تمضي مِنَ النيروزِ بالدَّليلِ
١٥٩ ويعتدلُ ألليلُ والنهَّارُ — حينئذٍ ويُؤكَلُ الكُبَّارُ

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(١٤٣) * جميع الأصول : فالبدر واللحن واضح . (١٤٨) * ت : علاثة ، التصويب من ب ، ظ .
(١٤٥) * ب ، ظ : فقس . (١٤٩) * لغة في واحفظ .
(١٤٦) * ب ، ظ : صاحبه . (١٥٥) * الأصول : وثلث .

١٦٠ وفيـهِ غَلاتُ* الشعيـرِ تـرمى وَهْو أعْتِدَالٌ للخريفِ يسمى
١٦١ في شَهْرِ تِشْرينَ الهلالُ العَرَبِيْ فيـهِ قرانـاتٌ لِبُرْجِ العَقْـرَبِ

37 [باشِيٌّ منزلة الطّرف]

١٦٢ وفي الثَلَثْ مـايةِ والخَمْسينِ يأتي الزُّبَاني الفجرَ بـالتعيينِ
١٦٣ ويستقلُّ الطرفُ* فوقَ الراسِ والجاهُ والفرقدُ في التواسِيْ**
١٦٤ لكنَّما الفرقَدُ صوبَ الشرقِ شـرحتُ هذا كلَّهُ بـالصـدقِ
١٦٥ يكونُ باشيْ الجاه إصْبَعْ واحِدْ لِخَمْسَةِ أَشْهُرْ حـديثٌ* واكِدْ
١٦٦ ولا يَكُنْ ذا النَّوُّ حتَّى ياتي تشرينُكَ الثاني وذا في ثَبتِ*
١٦٧ قَدْ كَمُلَتْ في عَشْرِ بَاشِيَّاتِ* في عَرْضِها لِلْمُفْتَكِرْ مآتي**
١٦٨ قصدي أخْتصارُ نَظْمِ ذي الأبيات كي تنتهي عنـدَ المبـالغـات
١٦٩ تَمَّتْ بِفَضْلِ* المَلِكِ العَّلامِ باشيْ نُجَيْماتِ اليَمَنْ والشامِ
١٧٠ وحِسْبَـةُ* الـنيـروز والـنَّـوَاءِ وأَشْهـر الـروم بـلا غـواءِ
١٧١ بَـلْ بيننـا وبينَهُـمْ خـلافُ في عِـدَّة السنين يا عَـرَّافُ*

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(١٦٠) * ب ، ظ : علامات .

(١٦٣) * الأصول : النثرة ، ** الأصول : في القياس .

(١٦٥) * ت : ذا حديث ، البديل من ب ، ظ .

(١٦٦) * الأصول : سبت .

(١٦٧) * الاصول : عشر باشيات
** الاصول : ما يأتي

(١٦٩) * ت : بحمدالله . البديل من ب ، ظ .

(١٧٠) * ت : يحسبه ، البديل من ب ، ظ .

(١٧١) * جميع النسخ : أيها العراف .

الفصل الخامس

في معرفة دِيَر برٍّ العرب والحجاز والسِّيام والخليج البربريِّ والسومال والرِّيم والزَّنْج وجزائر القُمْر وآخر بر* السودان والكانم فيما صحّ به الحساب والتواريخ**

38 [الديرة من جرون الى باب المندب]

١ وبعدَ هذا هاكَ شَرْحَ الدِّيْرَه ‏ ‏ مُخْتَصَراً بِنَظْمِ ذي البَصِيْرَه

٢ فـأَولاً منْ بَنْـدرِ* السُّلطانِ ‏ ‏ أَعني جَـرُونَ بَـلْدَةَ الأمـانِ

٣ إجْرِ على القُطْبِ لفكِّ الأَسَدْ ‏ ‏ ومنْهُ مِلْ* على اليسار وأجْتَهِدْ

٤ وآعْمَدْ الى مَطْلَعْ سُهَيْلٍ تُرْشَدِ ‏ ‏ الى سُحَـارَ البَلَدِ الـمُؤيَّـدِ

٥ ومنْ سُحَارٍ إنْ تُرِدْ مَسْكَتَـا* ‏ ‏ إجْرِ على الجَوْزَا ولا تَمْكُثا**

٦ ومِنْ هنـاكَ إنْ تُرِدْ قَلْهَـاتَـا ‏ ‏ مَجْرَاكَ في السُّهَيْلِ كُنْ ثَبَّاتَا*

٧ ومِنْ هُنَاكَ إنْ شِئْتَ رَأْسَ الحَدِّ ‏ ‏ مجراكَ في الجَوْزَا فَلا تُعَدِّ

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* ت : جزائر ، البديل من ب ، ظ .

** ب : به الأخبار والنقول .

(٢) * ب ، ظ : فأول ما يبدؤ .

(٣) * ب ، ظ : حيل مصحح حديثاً جز في ظ .

(٥) * جميع النسخ : مكلاّ ، وهو تصحيف ،

** جميع النسخ : تسلاّ وهو تصحيف .

(٦) * ت : بالثبات . البديل من ب ، ظ .

٨ إنْ لَمْ تُرِدْ تلزمَ برَّ العرَبِ	للحدِّ من فَكِّ الأَسَدْ في العَقْرَبِ
٩ وإنْ تَكُنْ تُطْلِقُ رَأْسَ الحدِّ	الى مَصِيْرَهْ فالسهَيْلُ يهدي
١٠ ومِنْ مَصِيْرَهْ يا فتى* مُجَرَّبْ	لخوريا** مَجْراك خنُّ العَقرَبْ***
١١ [من خُوْرِيَا أَيا أَخي لِفَرْتَكِ	في مَغْرِبِ الإكليلِ إجْرِ وأفْتِكِ]*
١٢ مِنْ فَرْتَكٍ اِجْرِ الى مصر اليَمَنْ	وَهْي* عَدَنْ في التَّير دَوِّمْ وآعْدُنْ
١٣ اعني مغيبَهُ* أيُّها العلماءُ	ومِنْ عَدَنْ للعَارَةِ الجَوزَاءُ
١٤ أيْضاً ومجرى البابِ نَسْرُ الطَّائِرِ	ومِنْ شاطىء العارةِ لا تُكَابِرِ
١٥ لاتَجْرِ بالليل أُخَيَّ وأرفُقَا*	إنْ لَمْ تَكُنْ معاوداً محققاً
١٦ وقيلَ تَأْتيكَ مِيُوْنُ تَشْتَهِرْ	كبيرةُ الأَقفافِ سودا في النَظَر*
١٧ وبينها يا صاح والأثافِ*	طريقُ تَسْتبعِدُ خُذْ أَوْصافي**
١٨ إنْ جُزْتَ ذاك النهجَ باغيَ الشامْ	فَحَذْرَكَ مِنَ الذُّبَابِ* والسلامْ
١٩ والبابُ مرسى أَزْيَبٍ شمالِ	إنْ شِئتَ أَنْ تُرسيْ هناك فأفْعَلِ

39 [الديرة من باب المندب الى جدة]

٢٠ وآعْلَمْ إذا أَطْلَقْتَ بابَ المَنْدَمِ	وقَصْدُكَ الزُّقْرُ ففي النَّعشِ آقْدِمِ
٢١ لكن حذار الثور* معْ ذُبَابِ	إنْ كُنْتَ باغيْ الزُّقْرَ مِنْ ذا البابِ
٢٢ كمثل ما تحذر رأْسَ جزًا	مِنْ جاشْ الى جرونَ يا ذا العَزَا*

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(١٠) * ب ، ظ : مصيرة خوريا .

** الأصول : لفرتك .

*** ب ، ظ : مجرب مجرى صحيحاً للأنام .

ت : ميخ العقرب .

(١١) * زيادة من ب ، ظ .

(١٢) * ت : ومن ، التصويب من ب ، ظ .

(١٣) * ت : المغيبات . ب ، ظ : المغيباه .

(١٥) * ب ، ظ : ارمقا .

(١٦) * ت : الصرا ، البديل من ب ، ظ .

(١٧) * ب ، ظ : الأثاثي .

** ب ، ظ : وصاتي

(١٨) * ت : فاحذرك من دباب ظ : الشام من بدير والسلام . ب : فاحذرك من بدير والسلام .

(٢١) * ت : لكن احذر .

(٢٢) * ب ، ظ اللغزا .

٢٣ والزُّقْرُ مرسى للشَمَالِ وآزْيَبِ مِنْ رأْسِهِ الجاهْي فلا تكذِّبِ
٢٤ في رأْسها الجاهْي مِنْ المغيبِ عــروكُ ســاكنــونَ يــاحبيبي
٢٥ بينَــهُ فــي أَمْكِنَــةٍ طــريقُ دِيْـرَتُهْ في القـطب يا رفيقُ
٢٦ من نصبٍ* للعـري للحديـدِ للباضع** للزُّقْـر يـا رشيـدي
٢٧ وفي سُهَيْليــهِ بَنَــادِرْ فــآدْرِ للغربِ والشَّرقِ فَدَعْهُمْ وآجْرِ
٢٨ الى الأَبـاعِـلْ وإلى سيبــانِ في مَغْـربِ العَيُّـوق بالعِيانِ
٢٩ أمَّـا الأَباعِـلْ فَهْيَ يا رُبَّـانُ فيهـا المراسي للخبيـرِ آلْوانُ
٣٠ لكنَّ يا رُبَّانُ في المـطالعِ يَظْهَرْ لَكَ شِعْبٌ فَجُزْ* وطَالِعِ
٣١ وَهْـوَ بُعَيْدَ طَـالعٍ* الجـزيـرَهْ وبينهمْ طـريقُ فيهـا الخيْـرَهْ
٣٢ والجُـزْرُ في غربيِّهـا* طـريقُ والعرقُ** أَيضاً بيِّن*** تحقيقُ
٣٣ وأُمُّ شَيْـطانْ طَحْـلَةٌ* بــرقٌ مِنَ الأَباعِلْ ترها في الشَّرْقِ
٣٤ وإنْ تُخَلِّفْهُمْ تــرى سيبـانَــا بـه مراسي كـلِّ ريحٍ كـانَا
٣٥ من أيِّ صوبٍ جئتَهُ فسَيَرا كفـاك ربِّي الضُّرَّ والتعسيـرَا
٣٦ ومنْ هناكَ آجْرِ لِجَاهِ آحْدَ عَشَرْ يَنْقُصُ رُبْعاً بأجْتهـادٍ وآشْتَهَرْ
٣٧ والصَّـدْرُ في النَّاقـة والعَيُّوقِ في ذلـكَ المكانِ بـالتَّحقيقِ
٣٨ ومِـلْ على المطلع للحجـازِ وآدْخُــلْ لجُدَّهْ بَنْـدرِ الأَعْـزازِ
٣٩ أَوْ شِئْتَ أَنْ تُقَصِّرَ الطريقَـا مِنْ جاهِ سَبْعٍ* مِلْ أَيا رفيقَا
٤٠ في النَّعْشِ والفَرْقَدِ ثُمَّ القُطْبِ إجْرِ سَوَاء حافظٌ لَكَ* ربي

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(٢٦) * ت : نصير ، التصويب من ب ، ظ .
** ب ، ظ : للبالع .
(٣٠) * ب ، ظ : فجر ي .
(٣١) * ب ، ظ : طالق .
(٣٢) * ت : وحذرك في هذه ، التصويب من ب ، ظ
** ب ، ظ : الشرق .
*** ب ، ظ : خبرا .
(٣٣) * ت : وام سيبان وطلة ، تصويب ب ، ظ .
(٣٩) * ب ، ظ : تسعاً .
(٤٠) * ت : حفظك ، البديل من ب ، ظ .

٤١ أمَّا إذا عاينتَ جُـزْرَ الدَّانِقْ ترميكَ دونَ القصدِ ذي المَطَالِقْ

٤٢ وإن تَـرَ المرمـاء والجديـرَا إجْرِ على الناقةِ كُنْ جديـرَا

٤٣ الى خُمَيْسٍ* ثُمَّ مِلْ لِلأَسْوَدِ وآحْذَرْ مِنَ الأوساخِ ثَمَّ وآبْعُدِ

٤٤ فهذه الطريقُ تجريها الخَشَبْ ذَكَـرْتُهَا مُخْتَصِـراً فلا عَجَبْ

٤٥ إنْ تَجْرِ يا رُبَّانُ في سواها وتَتْبَعِ الصَّـرْفَـةَ إذْ تـراهـا

٤٦ والـطُّرْقُ غَيْـرُ هـذهِ كَثِيْـرَهْ لـكنَّـهـا مُتْعِبـةٌ خَـطِيْـرَهْ

٤٧ وقدْ ذَكَرْهَا والدي* مِنْ قبلي وما تَرَكْ شيئاً** يصفُهُ مثلي

٤٨ مَيْمَـنَـةً ومَيْـسَـرَهْ لـلشـامِ كـلٌّ* نواحي البرِّ بـالتَّمامِ

٤٩ [بَيْنَهُمَا يُوْصِفُ خَمْسَ طُرُقْ الغَرْبَ والأوساطَ ثمَّ الشَّرَقْ]*

٥٠ [لكنَّني أخْتَصَرْتُ هذا النَهجْ دونَ سـواه [إنَّـه باللُّجَجْ*]

٥١ وهــذه الـطريقُ فيهـا المـدُّ مساعدٌ شـاميْ قَوِيْ مشـتـدُّ*

٥٢ وإنَّمـا تَصْعُبُ طُـرْقُ الشـامِ فـافْهَمِ الـطُرْقَـاتِ بـالتمـامِ

40 [الديرة من سيان الى القصير والسويس]

٥٣ وديــرةُ البــرِّ إلى القصيــرِ* ثمَّ السُّوَيْسِ ما ذَكَرْها غيري

٥٤ مِنَ الـربـابين ولا المَعَـالِمَـه لأنَّهـا ما هِيْ طـريقٌ سَالِمَـه

٥٥ تَمْنَعُـكَ الشِّعبان أَنْ تجـري في فردِ خنٍّ هاك صِدْقَ خبري

٥٦ أمَّـا طـريقُ يـا أخي البـاحَـه مِنْ حدِّ سيبانٍ بها السَّمَاحَه

٥٧ لـراسْ أبي مُحَمَّدٍ مجـراهـا في البارِ والنَّاقَـةِ لا سواهـا

٥٨ رأسٌ أبـي مُحَـمَّــدٍ للعيـنِ رأسٌ كـبيـرٌ بَيْنَ غُـبَّـتَيْـنِ

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(٤٣) * ت : خمسين ، التصويب من ب ، ظ .

(٤٧) * ب ، ظ : وقد ذكرتها والذي ،
** ب ، ظ : وما رأيت أحد .

(٤٨) * ت : كذا البديل من ب ، ظ .

(٤٩) * زيادة من ب ، ظ ، اسقاط في ت .

(٥٠) * ب ، ظ : باللج ، زيادة من ب ، ظ ، اسقاط في ت .

(٥١) * ت : مسداد ، البديل من ب ، ظ .

(٥٣) * ب ، ظ : البرين للقصير

٥٩ غُبَّةِ إيلا* ثمَّ غُبَّة الطُّوْر** | إذِ آسْمُها*** بَيْنَ المَلا مَشْهُورْ
٦٠ ومنْهُ للسُّوَيْسِ خُـذْ أَوْصَافي | بـأَزْيَبٍ مُوْلِمٍ يَبْقَى صـافي*
٦١ أَمَّا القصيرُ فَهْـوَ برُّ الـرِّيفِ | على اليسـار فافْهَمْنْ تكييفي
٦٢ بينَ السُّوَيْسِ والقصيرِ يا أخي | طُرْقٌ كثيراتُ الأَذَى والوَسَخِ*
٦٣ واسْمُ ذي الطريق هُوَ غَرَنْدَلْ* | مَغْطَسُ فِرْعونَ اللعينِ يُنْقَلْ
٦٤ مُقَابِلَهْ في البرِّ بَلْدُ القُلْزُمِ | هِيْ قَرْيَةٌ كانَتْ بها البحرُ سُمِي
٦٥ ومِنْ هنـاكَ يَسْتَضيقُ البحرُ | ويلتقي بحرُ الحجازْ ومصرُ
٦٦ فهـذه الطريقُ منْ سيبـانِ | لراسْ أَبي محمَّدٍ يـا آخْواني
٦٧ بهـا الظُّهارُ هِيَ والنُّعْمانُ | كلُّهُمْ بـمصـرَ لَمْ يبينـوا*
٦٨ وإنْ تَـرَ القصيرَ* والنُّعمَـانْ | أَبْحِرْ على العيُّوقِ يـا رُبَّانْ
٦٩ لَكِنْ تَحَـذَّرْ أَيُّها الـرُّبَّـانْ | مِنَ القصاصيرِ* مَعَ الشِّعْبَانْ
٧٠ والبعضُ قالوا البارُ منْ نُعْمَانِ | يرميكَ في البَحْرِ على شَدْوَانِ
٧١ شَدْوَانُ هِيْ جزيرةٌ يا سَيِّـدي | في البحر عَنْ راسٍ* أبي محمَّدِ

41 [ديرة بر بر بره]

٧٢ وبعـدَ ذا دِيْـرةُ بـرِّ بـر بـرَه | فسوف أَذْكُرْ شرحها وأَشْهَـرَه
٧٣ مِنَ السَّعِيدْ لِقَرْيَةِ الشيخ معا | فديرةُ البـرِّ المغيبُ فآسْمَعَـا
٧٤ مِنْ قَرْيَةِ الشيـخ يدورُ البَـر | في مَغْرِبِ النَّعْشِ لرأْس بَر

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(٥٩) * ب ، ظ : ابد .
** ظ : الطيور .
*** ت : فاسمها ، البديل من ب ، ظ .
(٦٠) * ب ، ظ : ينقافي .
(٦٢) * هذا البيت مقحم في نص النسخة البحرانية . انظر حاشية البيت ١٣٧ من هذا الفصل .
(٦٣) * ت : الطريق هي في بديل ، ب : الطريق ذي غرندل ، ظ : الطريق غرندل .
(٦٧) * ب ، ظ : كلهم نصفين لم ينبانا . ت : يبانوا .
(٦٨) * الأصول : الجدير .
(٦٩) * ت : الخفافين ، ب ، ظ : الجهانين .
(٧١) * ب ، ظ : في الراس راس .

٧٥ أَيْضاً الى الجينِ* أَيُّها السُّفَّارْ — لُكِنْ حَـذَارِ الكبسَ والعـوارْ
٧٦ فينبغي الإنســان ذو التمييـزِ — يحـاذرُ الأَوساخَ يـا عزيـزي
٧٧ ومنْ هنـاك يـا أخي للشـامِ — فالأَغْلَبُ العيُوق يـا همامي*
٧٨ لولا يطولُ الشرحُ كُنَّا نَشْرَحُ — جميعَ ما عنه الثِّقاتُ صَحَّحُوا
٧٩ ونشـرحُ الأَمـاكنَ المُضِيْقَـه — وَنَـذْكُرُ الجُـزْرَ على الحقيقَه
٨٠ لـكـنَّ هـذا دَرَكُ الـرُّبَّـانِ — فـافْهَمْ* تَكُنْ علاَّمَـةَ الزَّمـانِ
٨١ وبعـدَ ذا أَذْكُرُ وَصْفـاً ثاني — يـنـقُـلُـهُ رُبَّـانُ عَـنْ رُبَّـانِ
٨٢ منَ السَّعيدِ في طلوعِ* الرامحْ — لرأْسِ خَنْزِيْرَهْ** طريقُ واضِحْ
٨٣ مِنَ الجزيرهْ لنـواحي الهجرَه — في مَطْلَعِ النَّجْم فَسِرْ بخيْرَه*
٨٤ مِنْ فِيْلُكٍ إجْرِ لِبَنْدَرْ موسى — في مَطْلعِ الجوزاءِ يا رئيسا
٨٥ مِنْ هَجْرَةٍ لفيلُكٍ في الرامِحْ — مجرى لها للقاصدينَ واضِحْ
٨٦ وإنْ تُرِدْ منه الى* حـافوني — في مطلعِ السُّهَيْل بـاليقينِ**

42 [ديرة مل بر الزنج]

٨٧ وديـرةُ الـزَّنْـجِ لهـا السُّهَيْـلُ — مَغْرِبُـهُ فـاقْصُـدْهُ لا تميـلُ
٨٨ مِنْ جاهِ خَمْسٍ ماشيا لِمَنْفِيَه* — أَيْضاً وللأَخْـوار فَهْيَ صافِيَـه
٨٩ أَمَّا إذا صرنَ النعوشُ عَشْرا — تَجْذِبُكَ*الشُّعْبَانُ عَنْ ذي المجرى
٩٠ إنْ لَمْ تَكُنْ خَابِرَ ذي المكانِ — فليس يَهْديك سـوى الرُّبَّـانِ
٩١ الى سُفَالَهْ ، ونُعُوشُ خَمْسِ — هُوْ آخرُ البـرِّ فَدَتْـكَ نَفْسي
٩٢ لَمْ تَلْقَ بَرًّا في السُّهَيْلِ عَنْهُ — بَلْ جانبُ القُمْر بعيدٌ عَنْـهُ

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(٧٥) * ب ، ظ : وراس الجين . ت : الى الباب .

(٧٧) * ب ، ظ : بالالهام .

(٨٠) * ب ، ظ : ولو .

(٨٢) * ب ، ظ : بلاد .

** ب ، ظ : الجزيرة .

(٨٣) * ب ، ظ : مجره .

(٨٦) * ب ، ظ : بلد .

** ب ، ظ : على الصين .

(٨٨) * ت : ماميا لمعه ، البديل من ب ، ظ .

(٨٩) * ب ، ظ : تحدك .

٩٣ وَقَدْ رُوِي : آخرُ برِّ الحَبَشْ — بَنْدَرُ شَجْرَهْ عِندَ فَقْدِ* النَّعَشْ
٩٤ فثَمَّ هُـوْ مَنْبَـعُ نيـلِ مِصْـرِ — عَنِ ابْنِ حَوْقَلِ الهمامِ الحَبْرِ
٩٥ لا حـاجنـا الله وكـلَّ مُسْلمِ — لذا المكانِ الخَطِرِ المُظْلِمِ
٩٦ وفي حـديثٍ يـا فتى غـريبِ — مِنْ ثَمَّ للشَّمـالِ والمغيبِ
٩٧ آخِرُ يا رُبَّـانُ جُزْرِ المغـربِ* — بحرُ اوقيانُوْسٍ سُهَيْلِيْهِ الوَبِيْ**
٩٨ وبينـهُمْ مسـافـةٌ بعيـدَه — مسيرُ شهرٍ* بهُـوَى شـديـدَه
٩٩ وقيلَ كان في قديمِ الدَّهَرْ — مراكبُ الإفْرَنْجِ تاتي القُمُـرْ
١٠٠ أيضـاً ويـاتـون لبـرِّ الـزَّنْـجِ — والهندِ نَقْلاً عَنْ ذوي الإفْرَنْجِ

43 [ديرة جزيرة القمر والجزر المجاورة لها]

١٠١ والقُمْـرُ أَوَّلُهُ مِنَ الشَّمـالِ — نعوشْ أحَدْ عَشَرْ بلا مُحَالِ
١٠٢ أعني بـراس الملح يا همـامُ — تَعْـرِفُـهُ* الأعـرابُ والأعجامُ
١٠٣ وقـالَ بَعْضٌ إنَّه آثْنـا عَشَـرْ — أمَّا المغيبيْ هُوَ نَعْشُ آحَدْ عَشَرْ
١٠٤ وبينَـهُ وقـايـل* آزوامُ عَـدَدْ — ستَّهْ وخمسون وما فيها نَكَـدْ
١٠٥ وأَنْجَـزِيْجَـهْ بينـهـا* والبـرِّ — هِيْ أشهرُ الجُزْرِ فَخُذْ مِنْ خَبْري
١٠٦ أيضـاً دُمُـوني وكـذا مُـلاَلي — نَعْشُ أحَدْ عَشَرْ بلا محالِ*
١٠٧ كذا مُوْتُو عَشْرةٌ مَـعْ نصفِ — هِيْ أشْهَرُ الجُزْرِ فَخُذْ من وصفي*
١٠٨ وغيرُهـا في البرِّ جُزْرٌ جمَّا — بعضٌ سُمِيْ والبعضُ لا لم يُسْمَا

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(٩٣) * ب ، ظ : فوت .
(٩٧) * ب ظ : العرب .
** ت : بحر اوقانوس وسهيليه الوبي ، ب ، ظ : في اوقيانوس وسهيل الغربي .
(٩٨) * ت : شهرين . ب ، ظ : شهر .
(١٠٢) * ب ، ظ : بقرفة .
(١٠٤) * ت : بابل ، التصويب من ب ظ .
(١٠٥) * ب ، ظ : والجزر يأتينه .
(١٠٦) و(١٠٧) * هذا البيت مقحم في النسخة البحرانية . انظر حاشية البيت ١٣٧ من هذا الفصل .

١٠٩ ورأسُهُ من شاطيء السهيلي   يعلَمُهُ مُنَزِّلُ الإنجيلِ
١١٠ ولا سَمِعْنا فيه عِلْماً صادِقَا   ولا قياساتٍ ولا مطالقَا
١١١ بَلْ رأسُهُ الجاهيْ مَعَ البَنَادر   ومَنْزلِ السُّلْطان والجزائرِ
١١٢ وشرحُها ياتي مَعَ المطالقِ   في غير هذا الفصلِ بالحقائقِ
١١٣ وديرةُ القُمْر مغيبُ التِّيرِ   والما هنالكْ* صُلبُ المسيرِ
١١٤ وفي حديثٍ آخر غريبِ   قليلُ مَنْ يرويه بالتجريبِ
١١٥ بأنَّ أقصى القُمْرِ نَعْشُ إصْبَعِ*   دِيْرَهْ جَنوبيَّهْ سُهَيْل فاتَّبعِ
١١٦ والبعضُ قالوا كلُّهُ في التِّيرِ   هذا هو الظاهرُ يا بصيري
١١٧ والقُمْرُ منسوبٌ لقامرانِ   بِنْ سامِ بِنْ نوحٍ أبينا الثاني

★ ★ ★

١١٨ وهو لهُ بحريَّهُ جزائرُ   مما يلي الفالَ لها أمايِرُ
١١٩ أيضاً وأفشاتٌ* مع شعوبِ   وكونها عنه الى الجنوبِ
١٢٠ اثني عَشَرْ زاماً أيا معلِّما   جُزْرٌ كبارٌ نايفاتٌ* للسما
١٢١ لم يُعْترفْ كم [هيْ]* عليها النعشُ   مجهولةٌ لها مكانٌ وَحْشُ
١٢٢ لكنَّما تُخْبِرُكْ* المطالقُ   ثمَّ المسافهْ عَنْهُمْ يا حاذقُ
١٢٣ أمَّا ربابينُ نواحي القُمْرِ   مَعهُمْ لها مطالقٌ بالخُبْرِ
١٢٤ ياتونَ منها يا أخي بالعنبرِ   من سالفِ الدَّهْرِ القديمِ المُدْبِرِ
١٢٥ والبعضُ قالوا القُمْرُ والزَّنْجُ معا   إذ لم يغيبِ النَّعْشُ لم ينْقَطعا
١٢٦ يرونَ مَنْ زلَّ إذا توسَّطا   بين جنوبهمْ كُفِيتَ الغلطا*

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(١١٣) * ب ، ظ : والماء كدي .
(١١٥) * ب ، ظ : اربعة .
(١١٩) * ب ، ظ : انسات .
(١٢٠) *ب ، ظ : فائقات .
(١٢١) * زيادة من ب ظ .
(١٢٢) * ب ، ظ : لكيما تجريك .
(١٢٦) * ت : الغطا . التصويت من ب ظ .

١٢٧ لكنّـه مكـانُ ضِيقٍ وكَـرَبْ　　شعبانُه والموجُ والمدُّ عَجَبْ

١٢٨ إنْ قَـدَّر اللهْ لفُلكٍ ودَخَـلْ　　[في]* بحر أُوقانوس على قُرب** الأجَلْ

١٢٩ ما عنده سوى برورِ الكـانمِ　　جنوبيَ السُّودان تَـرْكُ فاعلمِ

١٣٠ وقيـلَ أقصى القُمْرِ يـا معلما　　نعشُ آصبعٍ بندرُ كوري فاعلما*

١٣١ أقصى الشمالِ وهو لولوجانْ　　نعوشُ عَشْرٍ جاء في التبيانْ

١٣٢ في غُبَّـةٍ تُكْليك* بـالسهيـلِ　　ما بين راسين فَخُذْ من قولي

١٣٣ اعني براس الملح إحدى عَشَرْ　　ومنزلا جي* نَعْشُ عَشْرَهْ تُذَّكَرْ

١٣٤ وقيـلَ غِلْظُ القُمْر يـا معلمـا　　عُشـرونَ زاماً ذكـروهُ العُلَمـا

١٣٥ وآعْلم بأنَّ حَوْلَ كلٍّ* القُمْرِ　　أوساخَ مَعْ شِعْبـانِ ثمَّ جُزْرِ

١٣٦ نعـوشُ سَبْعٍ ورقيقَ البحـرِ　　خُذْ في اليسار والسماكَ آجْرِ*

١٣٧ حتَّى يجي عِنْدَك نُعوشْ ثمانيه　　بذا الذي يرى النعوشَ عاليه*

١٣٨ ذا وصفُهُ أمَّا القياسُ الأصلي　　فسـوفَ أذْكُرُ بتـاسعْ فَصْـلِ

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(١٢٨) * زيادة من ب ظ .

** ب ، ظ : دقيانوس مع قصر .

(١٣٠) * ت : سما ، البديل من ب ظ .

(١٣٢) * ت : تكليك ، ب ، ظ : اتكى لك .

(١٣٣) * ب ، ظ : ومنزلاً في .

(١٣٥) * ب ، ظ : بأنّه حوالي .

(١٣٦) و(١٣٧) * هذان البيتان مقحمان في النص مع الأبيات ٦٢ ، ١٠٦ ، ١٠٧ ، فإذا حذفت الأبيات المقحمة أصبح عدد هذا الفصل ١٣٣ بيتاً تماماً كما ورد في الفصل الحادي عشر من الحاوية في البيتين ٩٩ و١٠٠ .

الفصـل السـادس

في معرفة دير بر العجم والهند والشُّوليان والنَّات والبنج* [والسيام إلى تحت الريح كبليطون والمهراج]** والصين والغور ، مما صحَّت عنه الأخبار

44 [دير بر العجم]

١ وبعـدَ ذا أشْرَحُ بـرَّ فَارِسِ	والهنـدَ والسِّيـامَ للمُمَـارِسِ
٢ أوَّلَ مـا تُـطْلِقُ مِنْ جَـرُونِ	إجْرِ على السُّهَيلِ بـالتمكينِ
٣ حتَّى تـوافِيْ جاشَ يـا معتـزًّا	وقَبْلَ* أن تُوصِلَهُ آحْذَرْ جزًّا
٤ ومِنْ أعالي راسِ جاشَ آجْرِ	للسِّنْدِ في الجوزا ومِلْ للنَّسْرِ
٥ لأن هـذي ديرة فيهـا خَلَلْ	فالبعض للجوزا وبعضٌ عنه زَلْ
٦ لم أرَ في ابايها* مَصَـالحَـا	لا بُدَّ أنْ تجريْ بها يا فالحَا
٧ إذْ في زمانيْ كَثُرَ الجُهـلاَء	لم يُعْرَفِ القَدْمُ مِنَ العُلَمَاء*

45 [دير بر الهند]

٨ وديـرةُ البـرِّ مِنَ الـدَيْبُـولِ*	الى مَهَايِمْ فاسْتَمِعْ مِنْ قَولي

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* ت : المهراج ، ب : البتخ ، التصويب من ظ .

** زيادة من ب ظ .

(٣) * ب ، ظ : وبعد .

(٦) * الأصول : بيانها

(٧) * ب ، ظ : لم يعرف العلم من المعلم .

(٨) * ب ، ظ : الديول .

٩ إحْذَرْ* عَنِ العَقْربِ أنْ تميلا ومِنْ مَهَايِمَ آقْصُدِ السُّهَيْلاَ
١٠ الى بَلَدْ كُوْلَمَ مجرى البَرِّ وبعضُهُمْ قال الى كُمَهْري
١١ وقالها الشُّوليْ الى كُمَهْري مِنْ كُوْلَمَ العقربُ* فآحْزِمْ وآجْرِ
١٢ ومن كُمَهْري في طلوعِ البارِ لقايلٍ حَقِّقْ ولا تُمارِ
١٣ في مَطْلع الواقعِ بالسويَّه ومَطْلعِ الظَّليمِ في الفَطِيَّه
١٤ ومن كُمَهْري مَطْلَقٌ لِشُلَّمِ في* مَطْلعِ السِّماك جُزْ** وآغْنَمِ

46 [دير سيلان]

١٥ أمَّا مِنَ الشُّلَمِ* بالتَّحقيقِ الى مُراشي فهو في العَيُّوقِ
١٦ راسٌ* مُراشي فهو يا إخواني مِنَ الشّمال آخرُ السِّيلانِ
١٧ منها على مَغْربِ نَسْرِ الطَّائر في الماء*ناكَ فَتَّنَ فحاذِرِ
١٨ بينهما أربعَةٌ أزواما في آخرِ المَفْرضِ* يا هماما
١٩ وإن تكن في مَرْكبٍ كبيرِ مُسْتَوْكِداً للشُّلَم لا تَسيرِ
٢٠ وآعْبُرْ على الجنوبِ من سيلانْ كفاكَ ربِّي البُعْدَ والطُّوفانْ
٢١ إنْ كنتَ طالِقاً كُمَهْري فاصْحَبِ لِنَحوِ طُوطاجامَ قَلْبَ العقربِ
٢٢ [مِنْ نَحْو طوطاجام في الجوزاءِ لنحو دَنُّورٍ بلا مراءِ]*
٢٣ وآجْرِ مِنَ الطُوطَهْ الى دَنُّورا في مَطْلعِ التَّيرِ وكُنْ جسورا
٢٤ ومنْ هُناك إلْزمِ* السِّماكا لنَحْوِ رامَنْ كوتَه يا ذا الذَّكا**

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(٩) * جميع الأصول : احزم .
(١١) * ب ، ظ : لنحو فالي موك .
(١٤) * ب ، ظ : مع .
** ب ، ظ : اجر .
(١٥) * ظ : السيام .
(١٦) * ب ، ظ : اما .
(١٧) * ب ، ظ : المل .
(١٨) * ت : المفرط . تصويب ب ظ .
(٢٢) * زيادة من ب ظ .
(٢٤) * ب ، ظ : الزم ، ت : الرامح .
** ب ، ظ : رامن اجر يا ذاكي .

٢٥ إن شئتَ تَعْبُرْ بينهُ والبَرِّ فاعْبُرْ ولا تَخْشَ به مِنْ ضُرِّ
٢٦ وإنْ تكن طالِقْ لرامَنْ منها في مَطْلع النَّعْش فاحْفَظَنَّها
٢٧ تاتيكَ تِرْكُنا مَلِهْ يَسارا فَبَدِّلِ المجرى وكُنْ يَسَّارا*
٢٨ في مَغْربِ الواقِعْ الى مُراشي وقال في العَيُّوقِ بعضُ الناسِ

47 [دير البر الغربي]

٢٩ ومِنْ مُراشي ولأكْرا كوري* في القُطْبِ مجرى صادقُ المسيرِ
٣٠ أيضاً الى مُتْبَلَ قُطْبُ الجاهِ أعني لَكَ الجاهْ ستَّةٌ زواهي
٣١ وهْوَ لَهُ منْ راس ناكَ فَتَّنِ في مَطْلعِ الفَرْقَدِ بالتَّمَكُّنِ
٣٢ صفاتُهُ شِعْبٌ عليه الماء قَابِلَ*صَدْرا فَتَّنَ بالسَّواء
٣٣ ومنه في النَّاقَهْ الى جُدَاوِري مطلعُها قَصْدي فلا تُكابِرِ
٣٤ ومنْ هُناكَ إنْ تُرِدْ فَشاشْ أَطْلِقْ على البَار وكُنْ ذا جاشْ*
٣٥ أعني : فَشاشُ تِسْعَةٌ ونصْفِ ؟ منه الى فُوفَلَمَ خُذْ مِنْ وصفي
٣٦ في القطبِ اِحْذَرْ أنْ تزيغَ المجرى فوفَلَمُ الجاهُ يكونُ عَشْرا
٣٧ قابِلَهَ جمالُ دَنْدي بَحْرا بينهما طريقُ فيها البُشْرَى*
٣٨ جمالُ دَنْدي فَشتْ لهُ خَرائِبُ دَعُوه يُسْراكُمْ ولا تُقارِبُوا
٣٩ وبعضُهُمْ يتركه يَمينَا عندَ الضروراتِ فكُنْ فَطينَا
٤٠ ومنْ فَشَاشٍ يا أخي إليهِ في مَطْلعِ النَّعْشِ فَسِرْ لَدَيْهِ*
٤١ ومِنْ فَشاشٍ نَقَلُوا الأحبارْ* في مَطْلعِ العَيُّوقِ للكَنْفارْ
٤٢ وقَبْلَ أنْ تُوصِلَهُ* يَرقى الفَنْجَري إذا رآهُ مِلْ وفي النَّعْشِ آسْرِ**

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(٢٧) * ب ، ظ : سيار .
(٢٩) * ب ، ظ : ومن مراشي لأكري كوري .
(٣٢) * ب ، ظ : تأتيك .
(٣٤) * ت : ذا ماس ، ب ، ظ : جساش .
(٣٧) * ت : اليسر ، البديل من ب ظ .
(٤٠) * ت : اليه ، البديل من ب ظ .
(٤١) * ت : يعلق الأحبار . البديل من ب ظ .
(٤٢) * ب ، ظ : قبل ان تصله .
** ت : الى راس مل وفي النعش اقرب البديل من ب ظ .

٤٣ وآتْرُكْهُ يُمْناً وآقصدنَّ* بندَرَكْ　　بَنْجالةَ الأُولى وصدِّقْ مُخْبِرَكْ
٤٤ والبَلْدُ لا يَقْطَعْ هنـاكَ كَـلَّا　　ولا تَسْرِ وَقْتَ الظلامِ أصْـلاً
٤٥ وإنْ تَكُنْ تُطْلِقْ مِنَ الكَنْفارِ　　وفي السِّماكِ أنْتَ منْهُ جاري
٤٦ تـاتي لِسُنْـدِيْبِ وفَـارَدِيْـبِ　　جَـزيـرَتَـيْـنِ هُـنَّ لـلأديـبِ
٤٧ عليهمـا الجاهْ أَحَـدْ وعَشْـرُ*　　وفيهما الناسُ كثيراً يَذْكـروا

48 [دير البر الشرقي]

٤٨ مِنْهُنَّ في التِّيرِ الى بَنْجَالَـه　　بَنْـدَرِ* شاتي جـامَ لا مُحالَـه
٤٩ والجـاهُ فيهـا عَشْـرَةٌ ونصفُ　　والبعضُ قالوا : غيرُ هذا الوصفُ
٥٠ أمَّا الأوالي حكموا إحدى عَشَرْ　　أعني لكَ البَنْجالَتينِ فـآخْتَبِرْ
٥١ أمَّا الذي يـأخُذُ قُرْبَ البَرِّ　　مِنْ خَوْرِ شاتي جام واجِبْ يَجْري
٥٢ منها على القُطْبِ لِزنجلاتِ*　　منْ بَعْـدِ أنْ يُخَلِّفَ الآفاتِ
٥٣ مِنْ زَنْجليًا خُذْ* أيَـا خليلي　　لنـاجراشي مَـطْلعَ السُّهيـلِ**
٥٤ والمطلقُ المشهورُ من نَجْراشي　　لِبُتَّمَ* العقربُ يا ذا المـاشي
٥٥ [من]* ناجراشي لجزيرةْ فالي　　في** مَطْلَعِ العقرب قال الشُّولي***
٥٦ من [راسِ]* ناجراشي لِمَرطْبَانْ　　في مَـطْلعِ الشِّعْراءِ يـا رُبَّانْ
٥٧ لأنَّ راسَ مَـرطَبـانَ مُنْحـرِفْ　　دونَ السِّيامِ كلُّه يا* مُعْتَرِفْ
٥٨ بينهمــا غبٌّ قليــلُ المــاءِ　　إحْذَرْ بأنْ تُقْبِلْ على الجوزاءِ

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(٤٣) * ت : . يمينك واقصد ، البديل من ب ظ .
(٤٧) * ب ، ظ : الجاه احدى عشر حصروا .
(٤٨) * ب ، ظ : اعني . ت : ابندر .
(٥٢) * ب ، ظ : لزنكماتي .
(٥٣) * ب ، ظ : من جزر تكملات .
* * ب ، ظ : من جز تكملات يا خليلا لراس نكراشي خذ السهيلا .
(٥٤) * ظ : ليتم .
(٥٥) * زيادة في ب ظ .
* * ت : من ، التصويب من ب ظ .
* * * ت : قال الشولي ب ، ظ : قال للسومال .
(٥٧) * ب ، ظ : كن .

٥٩ إنْ لَمْ تُرِدْ فَيْجُوَهْ أو كَشْميرا | لا تترُكَنَّ الشِّعْرِيَ العَبـورا*
٦٠ لِمَـرْطَبـانٍ ثمَّ سِـرْ لفـالي* | مجراكَ صَحَّ القُطْبُ لا محال ؟

49 [دير بر السيام وجزر تكوه]

٦١ مِنْ فُـولـوا تَـواهيَ لِبُتَّمـا | إجْرِ على مَطْلَعْ سُهَيْلٍ تَغْنَما*
٦٢ أيضـاً وتَكْـوَة أيُّها الـرُّبَّـانْ | هُمْ جُزُرٌ جمٌّ بـلا شِعْبـان
٦٣ ومَنْ أرادَ تَكْـوَةَ من بُتَّمـا | يَجْـري على مَطْلَعِهِ ليَغْنما*
٦٤ الى قفاصي* افْهمِ المجاري | في مَطْلعِ السُّهَيـل لا تُمـارِ
٦٥ والمَطْلقُ المشهورُ خُذْ أخباري | من بُتَّمَ القُطْبُ لِتَكْوى باري
٦٦ وإن تكن يا مُعْتني هذا الفَنْ | تُطْلقُ مِنْ جُزْرٍ فُلُو سَمْبِيْلَنْ
٦٧ إجْرِ على مَطْلعِ قَلْبِ العقربِ | الى قفاصي وآجْرِ هذا مَذْهبي*
٦٨ مِنْ دَنْجَ دَنْجٍ وفُلُو سَنْبِيْلَنْ | وبينَهُمْ إصْبَـعْ فـلا تَميْلَنْ
٦٩ أمَّا الى جُمْرٍ فَهْوَ العقربْ* | وبَرْهَلَهْ لها سُهيلٌ فاحْسِبْ**
٧٠ أمَّا شُمُطْرَهْ يا أخي قدْ جُرِّبَتْ | من تَكْوَةٍ في السِّلْبارِ استُقربَتْ
٧١ وقـال آخَرْ أوضَـحُ السَّبيـلِ | الى شُمطرَهْ قُطْبُ* السُّهَيـلِ

50 [دير بر الصين]

٧٢ وإنْ تَكُنْ تُطْلِقُ مِنْ شُمُطْرَه | وقَصْـدُكَ الصِّينُ فحينَ تَسْرَا

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(٥٩) * ب : الشعراء العبورا . ظ : الشعر والعبور . ت : الشعرتي العبورا . وكله غلط . وما أثبتناه يستقيم الوزن معه دون أن تستقيم اللغة .
(٦٠) * ب ، ظ : للبنقاله .
(٦١) * ب ، ظ : تسلم .
(٦٣) * زيادة من ب ، ظ . والبيت مقحم في النص .
(٦٤) * ب ، ظ : قياصي .
(٦٧) * ب ، ظ : واجر لها واحزب .
(٦٩) * ب ، ظ : الى خوهر فهذا المعقل ، ت : فهو العقرب .
** ب ، ظ : فاعقل .
(٧١) * ب ، ظ : قطبنا .

٧٣ إجْرِ على الإكْليل بالسُّرورِ لِبَرْهَلَهْ أيضاً مَعَ جُوْهُوْرِ*
٧٤ وإنْ تُخَلِّفْهُمْ فأقْبِلْ خنًّا على نُجَيْمِ التِّيرِ لا تأنَّى
٧٥ الى مَلَعْقَةْ* آسْتَمِعْ أوْضاعي والماءُ عِنْدَكَ عَشْرَةُ أبْواعِ
٧٦ وتلتقي قَبْلَ مَلاقَهْ فآفْهما فُل باسَلاَرْ [مَعَ]* القفاصي فآعْلَما
٧٧ فُلْ بَاسَلاَرُ هُوَ جَبَلْ قفاصي أمَّا قَفَاصي شِعْبُ* في الما راسي
٧٨ فيهِ مَفَارِضْ يا أخي فإنْ تَرَ فُلْ بَاسَلاَرَ في السِّماك* فآشْكرَا
٧٩ وإنْ تَكُنْ أرْضَ مَلاقَهْ طالِقَا فَكُنْ على التِّيرْ يا أخي* واثقَا
٨٠ لِنَحْوِ سَنْجافورَ فآرْحَلْ منها لِنَحْوِ* تِيْكٍ في النُّعُوشِ عنها
٨١ واجْرِ مِنْ تِيْكٍ لِنَحْوِ صُوْرَهْ على مَغِيْبِ السَّبْعَةِ المشهورَهْ
٨٢ والقُطْبُ* مِنْ صُوْرَهْ لشَهْرِنُوًّا يُمْنَى نِمَا ويَسْأرُ نَوًّا**
٨٣ منْ شَهْرِ نُوْ لِكُمْبُسَا العَقْرَبْ ديرَتُكَ في مَطْلَعِهْ لا المَغْرِبْ
٨٤ ومنْ هناكَ آجْرِ الى شَنْفَاءِ على طلوعِ نَعْشِها الكبراءِ
٨٥ وإنْ* تَكُنْ مُجَارِياً للديرَهْ وتلتقي الريحَ بها عَسِيرَهْ
٨٦ أعْني لَكَ الشليْ أوِ السِّماكا* والمطلعيَّ العاصفَ الهلاّكا**
٨٧ منْ حدِّ صُوْرَةٍ لِكُمْبُسَا آدْنِ وأرْسِ في البَحْرِ بَحْرَ بَرْني*
٨٨ وآجْرِ* لها في مَطْلَعِ السُّهَيلِ منْ شَهْرِنُوْ إصْبَعَ يَا خليلي
٨٩ أيضاً وفي المُحْنِثِ ثمَّ القُطْبِ لأنَّها كبيرةٌ بالقُرْبِ*

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(٧٣) * ت : جمهوري ، البديل من ب ، ظ .
(٧٥) *ت : ملاقة ، البديل من ب ، ظ للوزن .
(٧٦) * زيادة من ب ، ظ .
(٧٧) * ب ، ظ : فيض .
(٧٨) الأصول : الشمال .
(٧٩) * ب ، ظ : على نجيم التير حقاً .
(٨٠) * ظ : لأن .
(٨٢) * ت : في القطر ، البديل من ب ، ظ .
** ب : هذا الشطر غير معجم .
ب ، ظ : يميناً نما ويساراً انوا وكله تصحيف .
(٨٥) * ب ، ظ : ومن .
(٨٦) * ت : الشمال . البديل من ب ، ظ .
** ب ، ظ : الهلاك . ت : الهلال .
(٨٧) * ت : وارس في البحر بجزيرة برني ، ب ، ظ : وراس ما في البحر برني .
(٨٨) * ب ، ظ : وجز .
(٨٩) * ب ، ظ : بالقطب .

٩٠ وراسها الجَاهِيْ بِوَجْهِ الماءِ — وراسُهـا خَمْسٌ بـلا مـراءِ
٩١ من شَهْرِنُوٌّ في طلوعِ الطائرِ — والجاهُ خَمْسٌ فيهما* للناظر
٩٢ كَمِثْلِ تَيْمور وهُنَّ جُزْرُ — على* جنوبي جَاوةٍ يا عَمْرُو
٩٣ وديرَتُكْ منْ حدٍّ شَنْفا الواقعُ — ذاكَ هُوَ النَّسْرُ المنيرُ الطالِعُ
٩٤ لِبَنْدَرِ الصِّينِ سُمِي زَيْتُونَا — والجاهُ إذْ سُمِيْ بها عشرونَا
٩٥ وترجعُ الديرةُ منْ زَيْتُونِ — لِمُنْتَهى مُلْكِ مَلِيكِ الصينِ
٩٦ في مَطْلَعِ الإكليلِ قالَ الراوي — عَنْ تَجْرِبَهْ* [من] صينها والجاوي
٩٧ وتتبعُ الشمالَ والمغيبَا — مساكنُ الأتراك يا حبيبًا
٩٨ فثَمَّ ياجوجٌ مَعَ ماجوجْ — في جُزْرٍ مُشْمِلَهْ هُنَاكَ تَمُوجْ*

★ ★ ★

٩٩ وإنْ تُرِدْ تَلْزَمَ فَرْدَ مجرى — مِنْ حدِّ سَنْجافُوْرَ أُخْرُجْ بَحْرَا
١٠٠ لِشَهْرِنُوٍّ والى هَاتُونِ* — أَيْضاً وقَلْتُوْنَ مَعَ عَلْتُونِ
١٠١ وبعدَهُمْ زَيتُون خُذْ سُؤالَكْ* — واسْمُ تَختِ مُلْكِهُمْ كُنْبالَكْ
١٠٢ ولا جَنُوبِيهُنَّ إلاَّ وَسَخْ — والغورُ قالَ القاضيُ المُؤرِّخْ*



(٩١) * ت : صح ، البديل من ب ، ظ .
(٩٢) * ب ، ظ : كنّ .
(٩٦) * ت : عند تجربة ، ب ، ظ : عن تجريب .
(٩٨) * ب ، ظ : مشتمله تهويج . ت : مشتملة هناك تموج .
(١٠٠) * ب ، ظ : هيتوني .
(١٠١) * ت : سالك . البديل من ب ، ظ .
(١٠٢) * لعلّه ابن قاضي شهبه الدمشقي (١٣٧٧ - ١٤٢٨)

١٠٣ وبعدَ ذا الإقليمِ لَمْ تَلْقَ بَشَرْ	سَوِيَّةَ* الخِلْقَةِ تُغْنِيْ من سَفَرْ**
١٠٤ لأَنَّهُمْ في طَـرَفِ الـدنيـاءِ	مُـدِلُّهُنَّ الـعقـلُ بـالـنِّهَـاءِ
١٠٥ ولا سَمِعْنا غيرَ هذي مَعْرِفَه	لها أَسانيدُ سوى هذي الصِّفَه
١٠٦ قد تَمَّتِ الدِّيرةُ يا أَصحابي	أَعْني بـرورَ المُلِّ بـالصَّوَابِ
١٠٧ الغربَ والشَّرْقَ عَرَبْهَا والعَجَمْ	وقُمْرَهَا والصِّينَ كلٌّ قَدْ خُتِمْ
١٠٨ ما صَحَّ مِنْها ومُعَمًّى* الدِيَرِ	تَرَكْتُهُ لذي الفَشَارِ [المُفْتَري]**

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(١٠٣) * ت : شويهة ، التصويب من ب ، ظ .

** ب ، ظ : للسفر .

(١٠٨) * ت : معنى ، التصويب من ب ، ظ .

** زيادة من ب ، ظ .

الفصل السابع

في معرفة دير الجزر ومطالقها* والمهراج وشُمُطْره والفال والقُمْر واليمن وسواحل الحبشة والسومال والأطواح** ومكران ، وما بينهم ، وما يتعلق بذلك مما صحت عنه الأخبار والتواريخ . والله أعلم بالصواب

51 [الديرة من ملاقة لجاوه]

١ ومنْ مَلاَقَهْ إنْ تَكُنْ مُسَافِرَا لِنَحْوِ جَاوَهْ فافهَم الأشايرَا
٢ إجْرِ على العَقْرَبِ تَحْظَ بالظَّفَرْ حتَّى تُخَلِّفْ عَنْكَ سِيْنَا* في التَّفَرْ
٣ وبعدَ هذا مَطْلَعُ الإكليلِ الى بَهَايَهْ أَظْهَرُ السَّبيلِ
٤ لكنَّ* تلقى قبلها في المجرى فيسنكَ معْ سَلْتَ** كريمَنْ جزرا
٥ أيضاً وهَانُوَهْ فَلاَ تَعَدَّى من ذي الجزيرهْ من يديكَ البَلْدا
٦ ستَّةَ أَبْوَاعٍ لِسَلْتَ زَنْجي الى بهايهْ* كي بفوز** تُنْجي
٧ الخوف كلّ الخوف في هذا المَحَلّ في قرب سَلْتَ زَنْجِي* فَلَمْ تَزَلْ
٨ فبادرِ البلدَ* ثمَّ مايلا الى الجزيرهْ فاسمعِ الدلايلا

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* ب ، ظ : مطالعها .
** ظ : الطواح .
(٢) * ب ، ظ : سبتا . ت : شفا .
(٤) * ب ، ظ : لتكن .
** ب ، ظ : في سنك . ت : سنج معاسل .
(٦) * ت : نهاية ، تصويب ب ، ظ .
** ب ، ظ : ليست بفور : ت : بفرق .
(٧) * ت : زنحلتا تصويب ب ، ظ .
(٨) * ت : فبادر البلد ب ، ظ : مبادراً للبلد .

٩ لَأنَّ هذا بابُ موسى بَاري يَعْـرِفُـهُ كـلُّ ذَوِي الأَسْفَارِ

١٠ وسَلْتَ زَنْجي خَلْفَها للشَّرقِ* جُزْرُ بَلِيطونَ بها العودُ النَقِي

١١ وكلُّ هذي الجُزْرِ يا ذا السَّارِي أُتْـرُكَهَـا عَنْـك على اليَسـارِ

١٢ الى بَهَايَهْ* يا أَخي أَيْمِنْها** وإجْرِ في مَطْلَعْ سهيلٍ منها***

١٣ لِنَحْوِ تِيكا ثُمَّ سِرْ في العَقْرَبِ الى تُوبَنَ* ما بها منْ وَصَبِ

١٤ ودُمْ* على العَقْرَبِ لِتِيْكَاكُوْتَه ثمَّ لِجَاوَهْ يا أَخي المَنْعُوْتَه

١٥ وتيكَكُوْتَهْ هِيَ جزيرهْ عَـامِرَه فيها البَشَرْ طولَ الزمانِ حَاضِرَه

١٦ في القُطْبِ مِنْها لِفَرَاقِدْ أَرْبَعَه أَعني فَلِيتِيْجَ* صَحِيْحاً فَاتْبَعَه

١٧ وإنْ طَلَقْتَ تِيْكَكُـوتَـهْ بـاغِي جَاوَهْ وَبَنْدَرْها فَكُنْ لي صاغِي

١٨ تَجْري على العَقْرَبِ أَزْواماً قَدَرْ أَرْبَعَةٍ حتَّى تُغَيَّبْ في التَّفَرْ

١٩ تَنْظُرْ ذاكَ الحينَ سُنْدَ بَاري فَهْيَ طـريقُ المُلِّ للسُّفّـارِ

٢٠ وربَّمـا تَـنْـظُرُ تِلْكَ الجُـزْرَا ثلاثُ هُمْ في سُنْدَبَاري جَهْرا

٢١ هِنْـدامُهَـا* للتِّيـر** والإكليـلْ والنَّهْجُ ما بينهما لَدَى الدليلْ

٢٢ مـا بينَ أَطْـرافِ الجـزيـرتينِ وَصَفْتُهـا وصفاً على اليَقِيْنِ

٢٣ جاهيْ بجاوَهْ وسُهَيْلِيْ يا فَتَى شُمُـطْرَةُ* فَكُنْ لـذا مُلْتَفِتـا

٢٤ واجْرِ في العَقْرَبِ نُصبَ العينِ لِجَـاوةٍ فَـرَاقِـدَ آصْبَـعَـيْـنِ

٢٥ تلقى على بَنْـدَرِهَـا جـزيـرَه وإسْمُهَـا تُـوْبَنْ وَهِيْ كَبِيْـرَه

٢٦ فَآتْرُكَهَا عَنْكَ يَسَـارا وآدْخُلا بَنْـدَرَ جَاوَهْ غـانِماً مُحَصِّلاَ*

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(١٠) * ب ، ظ : لشرق .

(١٢) * ت : نهاية ، التصويب من ب ، ظ ،

** ت : يمينا ، التصويب من ب ، ظ .

*** الاصول : عنها .

(١٣) * ت : متوين . البديل من ب ، ظ .

(١٤) * ب ، ظ : اقدم .

(١٦) * ب ، ظ : فليتيك .

(٢١) * ت : هندافها ، التصويب من ب ، ظ .

** ب ، ظ : في التير .

(٢٣) * ت ، ب ، ظ : شمطره .

(٢٦) * محتلا ، التصويب من ب ، ظ .

٢٧ إنْ شِئْتَ جَرْشيكاً وَسَرْبَايَه هذي بَنَادِرْ يا أَخي عِطَايَه*
٢٨ مخفاية الرسم* لتخْتِ المَلِكِ في البرِّ يومٌ بمسيرٍ دَمِكِ

52 [دير جزر تيمور]

٢٩ ولا جَنُوبِيْها سوى تَيْمُورَه شَاشِيْ وفَاسَا* جُزُرٌ كَثِيرَه
٣٠ الى مَسِيْرَهْ يا أَخي شَهْرَيْنِ للشَّرْقِ والجَنُوبِ باليَقِيْنِ
٣١ وَجُزْرُ تَيْمُورَ كثيراً تُذَّكَرْ مِنْ نَعْشِ ستٍّ* لِنُعُوشِ آحْدَ عَشَرْ
٣٢ ولا سُمِيْ* بَنْدَرْ مِنَ** الجَزَائِرِ عنها جَنُوبِيْها بإِسْمٍ ظَاهِرِ
٣٣ بَلْ في تَوَاريخِ الذينَ سَلَفُوا أَفْشَاتُ مَعْ جزائِرٍ* لَمْ يُعرَفُوا
٣٤ وقيلَ فَانْدَا قَابَلَتْ* تَيْمُورَا في [نفس]** مَطْلَعْها فَكُنْ*** خَبِيْرا
٣٥ وَجاوَةٌ ديرتُها في العَقْرَبِ مِنْ ظَهْرِها* صَحَّ فلا تَكْذِبِ
٣٦ ثمَّ شُمُطْرَهْ عِنْدَ ذِيْ الأَلْبابِ هذي صفاتي لَكَ بالصَّوابِ

53 [دير جزر اندمند]

٣٧ أَمَّا صفاتُ جُزْرِ أَنْدَمَنْدِ الجاهُ فيها خَمْسَةٌ لَمْ يَزْدَدِ*
٣٨ وبينَها وبينَ بَرِّ النَّاتِ خمسونَ مَعْ زامين* عَنْ ثِقَاتِ
٣٩ وبينَها وبَانْدَنْ* والسِّيَامْ ثَلَاثْ وثَلْثونَ** وهنَّ بالتَّمامْ

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(٢٧) * ت : عصابة ، ب ، ظ : مخفاية .
(٢٨) * جميع النسخ : الاسم .
(٢٩) * ت : وفاند ، ب ، ظ : وفاسا .
(٣١) * ب ، ظ : سبعة .
(٣٢) * ب ، ظ : سوى . ت : سموا .
** ت : ولا سموا فاندن في ، البديل من ب ، ظ : ولا سوى بندر من .
(٣٣) * ب ، ظ : خرائب .
(٣٤) * ب ، ظ : قايل .
** زيادة في هامش ظ .
*** ت : كن بذا ، البديل من ب ظ .
(٣٥) * ت : من ظهرها بيان .
(٣٧) * ت : لمن يرد ، البديل من ب ظ .
(٣٨) * ب ، ظ : واثنان .
(٣٩) * ب ، ظ : يا زيد ،
** جميع النسخ : ثلاثة وثلثون .

٤٠ وهْيَ جزائِرْ فَرْدَةٌ في اليَمْ ... وبينَهـا طُرْقٌ تُـزِيْـلُ الغَمْ

٤١ أَوْسَعُهَا يا صاحِ جَاهُ أَرْبَعَه ... وجَاهُ إِصْبَعْ ثمَّ نِصْفٍ فَٱتْبَعَه

٤٢ ديـرتُها مَـطْلَعْ سُهَيْلِ اليَمَنْ ... لِحَـدِّ جَامِسْ فُلَهِ يـا سَكَنْ

٤٣ فـإِنْ تَـظَلَّ* لازمـاً للمجـرَى ... لَمْ تَلْقَ شَيْئاً قَطُّ إلاَّ الجُزْرَا

٤٤ [وإسْمُهَا يا صَاحِ مِيْقَامَارُوْسْ ... مَارُوْسُ طَوْدٌ في شُمُطْرَهْ مَانُوْسْ]*

٤٥ وحـولَهـا جـزائـرٌ* كثيـرَه ... فَـهؤُلاءِ آسْمُهُـمُ الـكـبـيـرَه

٤٦ لا كَبَّـرَ اللّهُ لَـهُنَّ آسْـمَـا ... ولا رمى فيهمْ صديقاً مُسْلِمَا

٤٧ أَوْ كُنْتَ منْ جَامِسْ فُلَهْ مُجْنِبَا ... لِمَهْكُفَنْـج فـإليـكَ العَقْـرَبَـا

٤٨ ومَطْلَعُ الجوزاءِ مجرى*لأمري ... أيضـاً وبرُّهـا شُمُطْرَهْ** فـآدْرِ

٤٩ أَمَّـا بطينُ يـا أَخي شُمُطْرَه ... كـثـيـرةٌ أَرقـاقُـهُ مُـضِـرَّه

٥٠ مُشَـرِّقَـهْ لِنَحْـوِ بَـرِّ* المُـلِّ ... أَعني السِّيامَ فَٱخْتَبِرْ يا خِلِّي

٥١ وكَمْ ترى في الغربِ والجنوبِ ... عنها منَ الأَوْساخِ يا حبيبي

٥٢ وكَمْ ترى في الغرب ثُمَّ الشَّرْقِ ... عنْ جَـاوَةٍ مِنْ وَسَخ ورقِ

٥٣ لكنَّني ذَكَـرْتُ ما قـدْ شُهِرَا ... عَـرَّفْـتُ أَسْمـاءَهُ والـجُـزْرَا

54 [مطالق الجزر]

٥٤ أَمَّا مَطَالِقْ يا أَخي الجزايـرْ ... خُـذْ وَصْفَهَا منِّي والامـايـر*

٥٥ ومنْ كَرِيْمُوا إنْ تَكُنْ مُشَرِّقَا ... الى بَيَانٍ* في الثُّرَيَّا أَطْلِقَا**

٥٦ وفي كَرِيْمُوا الفَرْقَدَانِ آصْبَعَانْ ... أَيضاً ونصْفٌ كُنَّ في الحسبانْ*

٥٧ ومثلُهـا سُنْـدَهْ وفي بَـيَـانِ ... أَرْبَـعَـةٌ ونـصـفُ لـلرُّبَّـانِ

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(٤٣) * ت : تصل . البديل من ب ، ظ .

(٤٤) * زيادة من ب ، ظ .

(٤٥) * ت : حاراير . ب ، ظ : خرائبه

(٤٨) * ب ، ظ : فمطلع ،

** ت : الى برارع وشمطره ، البديل من ب ، ظ .

(٥٠) * ب ، ظ : النحوس .

(٥٤) * ت : تكتثر بالاماير ، البديل من ب ، ظ .

(٥٥) * ت : بنات . البديل من ب ، ظ .

** ب ، ظ : المطلق .

(٥٦) * ب ، ظ : الخشبان .

٥٨ ومنْ كَرِيمُوَا للاوْدي* تَسْري**	وآجْرِ على السِّماكِ إذْ ما تَجْري
٥٩ ثُمَّ آقْصُدِ الواقِعْ الى مُلُوكِ	وبَرْنِي البارَ بِلاَ شُكُوكِ
٦٠ واجْرِ في النَّاقَهْ لِصَوْلَكْ ودَعَه	إنَّ عَليها الجاهَ نِصْفُ* أَرْبَعَه
٦١ ومَطْلَعُ النَّعْش لِجَزيرَهْ لِيَبوا*	جاهُ ثَلاثَهْ ثُمَّ نِصْفِ آسْتَوى
٦٢ ومَطْلَعُ الفَرْقَدْ الى مَقَاسِرِ	جاهُ آصْبَعَيْنْ ونِصْفِ لا تُكابِرِ*
٦٣ أمَّا سُهَيْلِيْها فَراقِدْ ستَّه	خُذْ وَصْفَ مَنْ ميَّزها ونَعْتَه
٦٤ الجاهُ زَيْتُونٌ وغَرْبُ الفَرْقَدِ	على كَرِيْمَا بالجَزايِرْ* فآهْتَدِ
٦٥ ومنْ كَرِيْمُوا في مغيبِ النَّعْشِ	الى فلِيْتِيْكَ مَجْرى مَفْشِي
٦٦ ومنْ فَلِيْتِيك تُرى الفَراقِدُ	خَمْساً وبَعْضٌ قال* : نِصْفٌ زائِدُ
٦٧ واجْرِ في النَّاقَهْ لِسَنْجَافُورْ	والبارُ قيلَ مَطْلَقٌ مَشْهُورْ
٦٨ لِنَحْوِ جينا يا أَخي وفرسو*	فَرْقَدْ ثلاثٍ ثمَّ نِصْفِ قاسوا**
٦٩ واجْرِ في الوَاقِعْ لمُوسَى باري	وفي مغيبِ الأَصْل سُنْدَهْ باري
٧٠ ومنْ كريمُوَا آجْرِ في الجَوزاءِ	والقلبِ والإكليلِ والشِّعْراءِ
٧١ في غربهمْ لجاوةَ الشهيرَه*	أَمَّا سُهَيْلٌ فعلى** تَيْمُوْرَا
٧٢ وقيلَ للمَطْلَعِ والسهيلْ	على*جزايرْ بانَدَنْ** قليلْ
٧٣ ذَكَرْتُ ذي المطالقَ المجهولَه	قصدي التِّرِفَّا إنَّها مَغْفُولَه
٧٤ وكَمْ ترى* شرقيَّ ذي الجزيرَه	جزايراً لَمْ تُعْتَرَفْ كثيرَه

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(٥٨) * ت : لواداد ، البديل من ب ، ظ .
** ب ، ظ : امترى .
(٦٠) * ب ، ظ : يصفو .
(٦١) * ب ، ظ : ليبوى .
(٦٢) * ت : تكاثر ، البديل من ب ، ظ .
(٦٤) * ت : الجزائر ، التصويب من ب ، ظ .
(٦٦) * ب ، ظ : خمسة اصابع ثم .
(٦٨) * ب ، ظ : ترفاسوا .
** ب ، ظ : فاستوى .
(٧١) * ب ، ظ : اشتهرا .
** ت : مال ، تصويب ب ، ظ .
(٧٢) * ت : في البديل من ب ، ظ .
** ب ، ظ : فاندر .
(٧٤) * ب ، ظ : ورا .

55 [دير دورة سيلان]

٧٥ ودورةُ السيلانِ عِنْدَ النَّاسِ	في القلبِ للشُّلَّمْ* مِنْ مُراشي
٧٦ [ومِنْ مُراشي إنْ تُرِدْ قَدَرْ مَلِي	في قُطْبِ السُّهَيلِ قَدْ حُقِّقَ لي]*
٧٧ ومِنْ هناك آجْرِ الى شَلاوَمِ	على سُهَيلِ [والى]* مكّاتَمِ**
٧٨ وبَدِّلِ المجرى الى* دَنُّورا	من حدِّ مكّاتِمْ** وكُنْ جَسورا
٧٩ في مَطْلَعِ الجوزا ومنْ دَنُّورِ	لِتَيْكَلَ الطائرُ في المَسيرِ
٨٠ وإنْ تَسِرْ منْ تَيْكَلٍ لأيطما*	فَسِرْ على النَّجْمِ السَّعيدِ تَغْنَما
٨١ مَطْلَعَهُ إلْزَمْ وكُنْ ثَبوتا	منْ أَيْطَمَ* الرامِحْ لِرَامَنْ كُوْتَه

56 [دير جزر الفال والذيبة]

٨٢ وديرةُ الفالِ وجُزْرِ الفَالِ	في القُطْبِ اجْر بها ولا تُبالِ
٨٣ [الى مَحَلَّ ذا المحلُّ العالي	لآخر سُلْطانِهُمُ والوالي
٨٤ ومنْ محلًّ في السُّهَيْلِ المَسْرى	لآخر الفالِ ونعْمَ المجرى
٨٥ والبعضُ قالوا الفالُ للسهيلِ	مِنْ راسه الى أقاصي* الذيلِ
٨٦ ولَمْ يُحقِّقوا قياساً أُصَّلا	على جَنُوبِيْهِ محلُّ الجُهَلا
٨٧ أمّا شَمَالِيْهِ عليه الجاهُ	خَمسٌ صحيحَهْ ما به إشْباهُ
٨٨ والسَطَرُ الأَوَّلُ جاهُ أربَعَه	ورُبْعِ إصْبَعْ خُذْ حديثي وآسْمَعَه
٨٩ والسَّاحِليْ أَرْبَعَةُ إحكامَا	ومنه للمُلِّ آثْنا عَشَرْ زاما

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(٧٥) * ت : الى الشام ، التصويب من ب ظ .
(٧٦) * زيادة من ب ، ظ .
(٧٧) * زيادة من ب ، ظ .
** ب ، ظ : تيكامعي ، ت : الأكاتم .
(٧٨) * ت : من ، البديل من ب ، ظ .
** ب ، ظ : تكامعي .
(٨٠) * ب ، ظ : وان شرقي تيكل لا يضمنا .
(٨١) ب ، ظ : انظم .
(٨٥) * ب ، ظ : من الراس الى اقصى .

٩٠ وبينَ كلِّ سَطْرٍ والآخَرِ أربَعَةُ أزوامٍ عِنْدَ الخابرِ]*
٩١ [ديرَتُهُمْ قُطْبُ السُّهَيْلِ حُقِّقا وأنْدَرُوه وآكْتي تَبَعْنا المَشْرِقا
٩٢ بَلْ إنَّ مَلْكي يا أخي عَنِ السَّطْرِ لساحِلِ المَغْرِبْ سُهَيْلٌ في الغُزْرِ
٩٣ أعدادُها آثْنَتا عَشَرْ جزيرَة بينهُمُ طُرْقٌ لذي البصيرَة
٩٤ ولَمْ تَزَلْ جميعُهُمْ عمارَا أُتْرُكْهُمُ إنْ جُزْتَهُمْ يَسارا
٩٥ إنْ كانَ مجراكَ ففي المطالعِ قاصدَ برِّ الهِندِ لا تُنازعِ]*
٩٦ [والساحليُّ كلِّتي وأنْدَروا وبَعْدَ كَفِّيني ومَلْكي خَبَّرُوا
٩٧ وبَعْدَ شَتْلاكُمْ وكَنْجَمَنْجَلا وكَوْرَدِيْب بَعْدَ أمِّيني تَلا
٩٨ وشِعْبُها البَحْريْ وجُزْرُ أكَّتي توري خَرابُ بَعْدَهُمْ خُذْ نَعْتي
٩٩ لها وكَنْجَمَنْجَلا شِعْبانِ في مَغْرِبِ السُّهَيْلِ واقِعانِ
١٠٠ لكنَّ ذا شعبٌ كبيرٌ قاصي خَمْسَ فراسِخْ صِرْنَ للخَواصِ
١٠١ وفاتِيَهْ مُنْحَرِفٌ قليلا عَنْ كُوْرَدِيب للغرْبِ يا خليلا
١٠٢ والجاه بين البَتْرِ والفرمَلي أرْبَعْ أصابِعْ جُرِّبَتْ يا أملي
١٠٣ وبينَ شَتْلاكُمْ وكَنْجَمَنْجَلا الجاهُ ذُبَّانٌ فلا تُبَدِّلا
١٠٤ وثمَّ كلِّتي آرْبَعَهْ وأنْدرُوا ثلاثةٌ ونصفُ لي قدْ خَبَّروا
١٠٥ وأكَّتي ، بَنْجارَمُ ، كُورديبُ كأنْدرُوا يا أيُّها الأديبُ
١٠٦ وقسْ [ثلاثاً] إنْ تردْ توري أيضاً وكفِّيني على التَّحْريرِ
١٠٧ أمَّا جزيرهْ مُلَكِي قاسوها بإصْبَعينْ ونصْفِ جَرَّبوها
١٠٨ لها مسافةٌ منْ برِّ كُوْلَمِ التميلِ* أزْوامُ عَشْرٍ وثمانٍ فآسألِ]**
١٠٩ وإنْ تَكُنْ تَلْزَمْ سُهَيْلاً منها* جزيرةُ لارْديب** تَقْرُبْ منها

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(٩٠) * زيادة من ب ، ظ .

(٩٥) * زيادة من ب ، ظ .

(١٠٨) * لا يستقيم وزن البيت . إلا إذا قلنا مثلاً : من برها لكولم التميل .

** زيادة من ب ، ظ .

(١٠٩) * الاصول عنها ، ** ب ، ظ : لاشك بلا ريب .

١١٠ والجاهُ فيها نِصْفُ ذُبَّانٍ وهي	ثلاثُ عَشْرَهْ قِطْعَةً فانْتهى*
١١١ فمَنْ يُرِدْ منها الى كيلاءِ	فالقلبُ مجرى كلِّ ذي نِهاءِ
١١٢ وهِيْ جزيرَهْ يا أخي كبيرَه	جاهُ أصْبَعٍ خُذْ تحريرَه
١١٣ منها الى محلٍّ في السُّهَيْلِ	مَطْلَعه للغَرْبِ بالدليلِ
١١٤ لكنَّ تَلْقَى أولاً كَنْدِيْكَلْ	أيضاً وُجْبتي مَنْ تُرِدْ عن ذا [فَسَلْ]*
١١٥ أيضاً وشيخْ دِيبُ وكارَديبُ	الجاهُ نصفُ أصبَعٍ لا يغيبُ
١١٦ كَنْدِيْكَلُ الجاهُ عليها إصبَعُ	أمَّا بجُبْتِي نصفُهُ فاسْمَعوا*
١١٧ في البحْرِ عنها أقْليمُ كَنْدَلوسِ	نُظِّمَ في الكترةِ عنْ مالوسي*
١١٨ وفي محلٍّ الجاهُ واسى* الماء	والفرقدانِ سَبْعَةُ بالسواء
١١٩ وإنْ طَلَقْتَ منْ مَحَلٍّ ساري	وأنْت في مَطْلَعْ سُهَيْلٍ جاري
١٢٠ تلقى ملوكَ يا فتى وهَدْمَتِي	قَبْلَ سُوَيْدُوْ فاسْتَمِعْ مقالتي
١٢١ وبينها وبينَ تَيْرَمْ توري*	عشرونَ زاماً جاء في التَّقْديرِ
١٢٢ وإنْ تَكُنْ طالقَ مِنْ هَدْمَتي	الى سُوَيْدو فاسْتَفِد مِنْ كلمتي
١٢٣ والفرقدانِ في ملوكٍ ستَّه	وهَدْمَتي بلا شكوكٍ خَمْسَه
١٢٤ إجْرِ لها في مطلعِ السُّهَيْلِ	فراقدُ أرْبَعَهْ ونصفٍ قولي*
١٢٥ ومنْ سُويْدو لِفُلو مُلُوكِ	بمطلع العَقْرَبْ بلا شُكوكِ*
١٢٦ ومن سُوِيْدو لِأَدُو* يا صاحِ	في مَطْلَعِ السُّهيل بالإيضاح
١٢٧ جزائرٌ عِدَّتُها ثمانِ	آخر* كلِّ الجُزْرِ** يا رُبَّاني

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(١١٠) * ب ، ظ : فانتهى . ت : مسه .

(١١٤) * ت : اسقاط ، ب ، ظ : اسال .

(١١٦) * ت : فاستمع ، ب : فاسمع ، ظ : فاسمعوا .

(١١٧) * ت : بالوس ، ب ، ظ : مالوس . والكترة ، وسط الشيء .

(١١٨) * ب ، ظ : سوى .

(١٢١) * ت : بر منورى ، ب ، ظ : تيرم تورى .

(١٢٤) * ب ، ظ : هي فراقد .. قبيلاً .

(١٢٥) * ب ، ظ : في السلوك .

(١٢٦) * ب ، ظ : ومن ولادا ان تسر .

(١٢٧) * ب ، ظ : هم آخر .

* * ب ، ظ : العمار .

١٢٨ ما بَعْدَها جزائرٌ مَعْموره* | أمَّا الخراباتُ فهيْ كَثيرَهْ
١٢٩ والفرقدانِ* أرْبعةْ عليها | فلا تُجاوزْ إذْ تَصِلْ اليها
١٣٠ وقد رأيتُ نَتَخاتٍ جُمَّا | للظلماتِ كلُّها تسمَّى
١٣١ مُنْقَطِعاتْ على نُعُوش آحدى عَشَرْ | ومائلاتْ للشرق هاكَ الخَبَرْ
١٣٢ ولا رأيتُ من يقول برًّا* لكْ | سوى خروص** أكثر في صفحتكْ***
١٣٣ ولا سَمِعْنا خَبراً صحيحاً | عن آخرِ الفال لنستريحا*
١٣٤ سوى الذي ذَكَرْتُهُ في النَّظْمِ | مُخْتَصَراً كي لا يقال أُمِّي*

57 [مطالق بر القمر]

١٣٥ وإنْ تكُنْ تُطْلِقُ بَرَّ القُمْرِ | وقَصْدُكَ المَعْبَرُ نَحْوَ الجُزْرِ
١٣٦ إجْرِ الى تيري رَجَا في المُحْنِثِ | مِنْ صَوْبِ سَعْدَهْ قال لي مُحَدِّثي
١٣٧ واجْرِ مِنْ بَنْدَرْ بني اسماعيل | في مطلع السُّهيل يا خليلي
١٣٨ ومطلعُ المُحْنِثِ مِنْ مَنْكارِ* | تيري رَجا تاتيك لا تُمارِ
١٣٩ ومنْ هَدُودَهْ في طُلُوعِ العَقربِ | أيضاً تراها* يا كثيرَ الأدبِ
١٤٠ أو كانَ مجراكَ بِنَسْرِ* الطائرِ | منْ نَحوِ بَنْدَرْ كوسَ لا تُكابِرِ
١٤١ تأتي جزيرَهْ يا أخي تيري رَجا | وتلكَ مِنْ بَنْدَرِ أبيهْ* تُرْتَجى
١٤٢ في مَطْلَعِ السِّماكِ يا صديقُ | أيضاً لها من كوريَ العيُّوقُ
١٤٣ هذي البنادرْ كلُّها في القُمْرِ | مِنَ المطالعْ فافْهَمَنَّ شعري
١٤٤ لولا اختلافُ يا أخي الرواةِ | كنَّا ذَكَرْنا ضِعْفَ ذي الصِّفاتِ

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(١٢٨) * ظ : معمورة جزيرة .
(١٢٩) * ب ، ظ : الا الفرقدين .
(١٣٢) * جميع النسخ : بربر .
* * جميع النسخ : حروص .
* * * جميع النسخ : صفوحتك .
(١٣٣) * ت : الفال يا أخي صحيحاً . البديل من ب ،ظ .
(١٣٤) * ت : كي يقال امي ، ب ، ظ : كي لا يقال ارمي .
(١٣٨) * ب ، ظ : الميكار .
(١٣٩) * ب ، ظ : تجيها .
(١٤٠) * ت : نسر . البديل من ب ،ظ .
(١٤١) * ت : اته . البديل من ب ،ظ .

١٤٥ أمَّا مَطَالِقُ بَـرْبَـرَهْ* للعَـرَبِ ذَكَـرْتُ مـا جَـرَّبتُ للمُجَـرِّبِ
١٤٦ منْ مَيْطَ للبابِ على الثُّريَّا والعـارةُ* السِّمـاكُ يـا أُخَيَّـا
١٤٧ أمَّا عَدَنْ في النَّسْرِ والعصيدَة عصيـدة* الحضارمِ الـرشيـدَه
١٤٨ في القُطْبِ والشَّحْرُ عليها الفرقَدْ إسْهَرْ ولا تَرْقُدْ كَمَنْ قَدْ رَقَدْ
١٤٩ ومـطلعُ النَّعش* عليه فَـرْتَكْ وخُـوريـا العَيُّـوقُ لا تُشَكِّـكْ
١٥٠ ومَنْ سرى من رأس جَرْدَفونِ في النَّعش صابَ* الجُزْرَ باليقينِ
١٥١ والقطبُ فَرْتَكْ والبُرُومُ النَّعَشْ والجُزْرُ مجرى البار ليس غِشّ
١٥٢ أمَّا عَدَنْ في التِّير* والسِّماكِ مجرى الى العارَهْ يا ذا الزاكي
١٥٣ والبابُ مجراهُ مغيبُ النَّجْمِ أعني* الثُّـريًّا إفْهَمَنْ نَـظْمي
١٥٤ ومنْ سُهَيْليٍّ سُقـطْرَهْ تمشي لحاسكَ القُطْبَ وظَفارِ النعش*
١٥٥ وفـرتكِ النَّـاقة ، أمَّـا الشَّحْرُ في النَّسْرِ والرَّامحُ تأتي الجُزْرُ
١٥٦ ودارُ زَيْنَـه فـالثُّريَّـا تُـرْشِـدُ* والفيلُكُ الهيـرانُ قد تـأكَّدوا
١٥٧ واجْرِ في الجوزا لِعَبْدِ الكوري وجَـرْدَفـونُ التِّيـرُ بـالتَّقْـريـرِ*
١٥٨ وفي مغيب يـا أخي الإكليلِ تَحْـويكَ بَنَّـهْ خُذِ بـالـدَّليـلِ
١٥٩ والقطبُ* حافوني تراكَ تـاتيَه واسْمُ** هذا الراسِ هُوْ قَلَنْسِيَه
١٦٠ وكلُّ رُبَّانٍ جـرى منْ مامي في القُطْبِ يلقى الجُزْرَ بالإقدامِ
١٦١ وفي مغيبِ النَّعْشِ تاتي حَيرِجَا وفي مغيب البار فَرْتَكْ تُرْتَجى
١٦٢ والشَّحْرُ في النَّجْمِ ودَارُ زَيْنَهْ خُـذِ المغيبَ تـراهـا بيِّنه*

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(١٤٥) * ب ، ظ : بر .
(١٤٦) * ب ، ظ : ذو العارة .
(١٤٧) * ب ، ظ : الحصيدة حصيدة .
(١٤٩) * ظ : الناقة .
(١٥٠) * ظ : صاحب ، ت : صار .
(١٥٢) * ب ، ظ : النجم .
(١٥٣) * ب ، ظ : عن .
(١٥٤) * لا يستقيم وزن البيت ولا القافية .
(١٥٦) * ب ، ظ : راشدا .
(١٥٧) * ت : التقريب ، التصويب من ب ،ظ .
(١٥٩) * ظ : القلب .
** ب ، ظ : من اسم .
(١٦٢) * ب ، ظ : سر في المغيب برها مبينه .

١٦٣ منْ فَرْتَكَ القطبُ عليه آجْروا	لِجَرْدَفونَ والسُّهَيْلَ آهْجروا
١٦٤ ومَيْطُ في العقربِ* أمَّا الرَّامِحُ	لِمَغْربِ الإكليل لي قد شرحوا**
١٦٥ وإنْ تَكُنْ طالِقَ مِنْ جُزْرٍ قَنا	في القُطْبِ تأخُذْ مَيْطَ مِنْ غَيْرِ عَنا
١٦٦ ولـلمُكـوَّرْ ثُـمَّ عَيْـدَرَاتِ*	في مَغْربِ المُحْنِثِ أنتَ تاتي**
١٦٧ وفي سهيـلٍ* تَلْتَقيكَ بَـرْبَرَهْ	وفي مغيبِ القلبِ زَيْلَعْ تَنْظُرَهْ**
١٦٨ ومَطْلَعِ الجوزاء منْ مِصْرِ اليَمَنْ	ترى سُقُطْرَهْ وسُهَيْلُها عَلَنْ*
١٦٩ والتِّيرُ عبد الكوري الدليـلُ	وجَـرْدَفـونُ يـا أخي الإكليـلُ
١٧٠ ومطلعُ القَلْبِ جبالُ الكُحْلِ	وطودُ مَيْطَ في الظليمِ يُعْلي
١٧١ وبَرْبَرَهْ في القطب* ثمَّ الزَّيْلَعْ	في مغربِ السُّهَيْلِ لَكَ يَرْتَفِعْ
١٧٢ وبعدُ في أثناءِ ذي المطالقِ*	أَذْكُرُ مَجْرى مـركبٍ للحاذقِ
١٧٣ خمسةٌ منَ الأزوامِ عَنْ مَيْطَ آغْزُرا	في مَطْلَعِ السِّماكِ تَأخُذْ مِدْوَرا
١٧٤ وكلُّ مَنْ يَعْرِفُ حسابَ هذا	يكونُ وهوَ الكاملُ الأُستـاذا*

59 [مطالق بر الجمجمة]

١٧٥ وإنْ تَكُنْ طالِقَ برِّ الجُمْجُمَه	لبرِّ مكرانٍ إليـك* المَصْلَحه
١٧٦ إنْ تَجْرِ في النَّاقَةِ للكرازي*	القطبَ تَنْتَخْ نَتْخَ** مجرى جائزٍ***
١٧٧ ومـطلعُ العَيُّوقْ لـطاح طـاحْ	وفي السِّماكِ بَسْنيَ يا صـاحْ

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(١٦٤) * ب ، ظ : المعقل .

** ب ، ظ : شارح .

(١٦٦) * ت : وللمكورات وعيدرات .

** ب ، ظ : ان تأتي

(١٦٧) * ب ، ظ : المغيب .

** ب ، ظ : تبصر .

(١٦٨) * ب ، ظ : ترى سهيلي سقطره قد علن .

(١٧١) * ب ، ظ : القلب .

(١٧٢) * ب ، ظ : المطالع .

(١٧٤) * ب ، ظ : يكن هو الاكمل الاستاذا .

(١٧٥) * ب ، ظ : تكون .

(١٧٦) * ب ، ظ : للمكرازي .

** ب ، ظ : فيه .

*** جميع النسخ : جاري .

١٧٨ أمّـا الثُريّـا فَهيَ للذُيُـولِ	إعْمَلْ بذا وآجْرِ بلا فُضولِ
١٧٩ وإنْ تَكُنْ طَالِقَ جاشَ رائحا	لِلَيمَّـةِ خُذِ السِّمـاكَ الرامِحـا
١٨٠ وإنْ تُـرِدْ أيـا أخي مـلاحَـا	خُذِ المغيبَ تَلْتقي الصلاحَا*
١٨١ وفي مغيبِ يـا أخي العقْرَبْ	الى عَـرَابَهْ مَـطْلَقٌ مُجَـرَّبْ
١٨٢ والقُـطْبُ يـا رُبَّـانُ للسُّـوَيْقِ	والسِّلْبَـارُ الجُـزْرُ بـالتحقيقِ
١٨٣ مَـطْلَعُـهُ ومسقطُ السُّهَـيـلْ	أيضـاً وقَلْهاتٌ بـذا الـدَّليـلْ
١٨٤ وفي الحمـارينِ يَقُولُ* الحَـدّ	إسْمَعْ كلامي وآفْهَمَنْ تُرْشَدْ**
١٨٥ هذي مجاري الأصْل بالسواءِ	وآحْسُبْ سواها عِنْدَ جَرْيِ الماءِ

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(١٨٠) * ب ، ظ : خذ المغيب تلقى الصلاحا .

(١٨٤) * ب ، ظ : يقول .

** ب ، ظ : افهمن الرشد .

الفصل الثامن

في معرفة المسافات* من بر العرب إلى بر الهند ، من جاه خمس إلى جاه اثنتي عشرة ، [وذكر المسافات] على أربعة رؤوس ، وذكر أزوامهم ، وما يتعلق بذلك ، وهم قيد [يعتلم بهم]** مسافات جميع البحر . والله أعلم بالصواب .**

60 [المسافات بين بر العرب وبر الهند من جاه احدى عشرة الى جاه خمس]

١ أمَّا المَسَافَةْ بينَ برِّ الهِنْدِ* وبينَ برِّ العُرْبِ** فَهِيَ عندي
٢ وعنــدَ كــلِّ الخَلْقِ أربعينــا بينَ* زَجَـدْ والحَـدِّ يـا فـطينـا
٣ أيضــاً وبينَ مَسْقَطٍ والسِّنْــدِ كذاك قد حُقِّ* حسابُ رشدي
٤ وبـينَ راسِ مِــدْوَرٍ وخَـلْفِ خمسونَ مَعْ* زامين في ذا الوصفِ**
٥ وبينَ دَهْـراوي وبينَ مَدْرَكَـه ثمانٍ معْ ستِّين ياذي البَرَكَه
٦ وبينَ راسِ سَـوْقِرَهْ وبُـورِيَـا فهي ثمـانـونَ فـلا* تُمـارِيَـا

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* ب ، ظ : الحسابات .
** زيادة من ب ظ .
(١) * ب : العرب .
** ب : الهند .
(٢) * ظ : من .
(٣) * ت : هكذا قدا ، ب ظ : كذا قد احق .
(٤) * ب ، ظ : في .
** ب ، ظ : النصف .
(٦) * ظ : فهي ثمان خذولا .

٧ ودَنْـدَبـاشي بينهـا وسَـاجـرِ تسعونَ مَعْ زامينَ عِنْدَ الخابرِ*

٨ وبينَ أَزْدِيْفَ* وَبَيْنَ الشِّحْـرِ مائهْ تزيدْ ثمانْ ونصفَ فآدرِ**

٩ أمَّـا المسـافـهْ بينَ مَنْجَلُورِ وطَـوْدِ* دارِ زَيْنَـةَ المشهـورِ

١٠ مـائةُ زامٍ مَـعْ ثلاثينَ على حسابِنَا هذا الذي قد كَمُلا

١١ وبـيـنَ دارِ زَيْـنَـةٍ ومـامـي منها على* هذا الحساب النامي**

١٢ سبعــةُ أَزْوامٍ تـزيـدُ نصفَـا فوق الثلاثين فهـاكَ الوصفَـا

١٣ وبينَ راسِ الفـالْ ومَلْبَارَاتْ عشرون زاماً ما بها شُبْهَاتْ

١٤ وبـينــه وبـيـنَ راس مــامـي سبعونَ مَعْ زامين خُذْ كلامي

١٥ وقالَ بعضٌ هُنَّ* سِتُّونَ عَدَدْ والتِّيرُ والواقعْ لدى الحِسْبَهْ سَنَدْ

١٦ وكـلَّمــا أَجْنَبْتَ زادَ فـيهــا ثمــانِيَــهْ أزوامٍ يـا وجـيهـا

١٧ في كل إصْبَعْ أيُّهـا الرُّبَّـانُ على الحسـابينِ لَكَ الأَمـانُ

61 [المسافات بين بر النات وبر السيام]

١٨ وديــرةُ السِّيَـامِ يـا مُسْتَخْبِـرُ يجري على السُّهيلِ فيها المُغْزِرُ*

١٩ [لآخر السيام هاك وصـفـي الى فراقدْ خمسةٍ ونصفِ]*

٢٠ أيضاً وبرُّ النَّاتِ في السُّهَيْلِ مغيبِهِ فـافْهَمْ لـذا التَـأويـلِ

٢١ عشـرونَ زامـاً بينَهُمْ وزائِـدَهْ زامان فَاحْسِبْها*بهذي القاعدَهْ

٢٢ مـا بينَ شـاتي جـامَ وكَنْفَـارَا كَرَّرْتُ لَكْ في نَظْمها مِرَارا

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(٧) * ظ : مع ستة كذا المخابر .
ب : مع ستة عند الخابر ، وفي
الحاشية : والأصح انها اثنان وتسعون زاماً .
(٨) * ت : ازديف ، ب ، ظ : ازاديو .
** ب ، ظ : مائة واربع عشر يا ذخر .
(٩) * ب ، ظ : وخلود .
(١١) * ب ، ظ : الى .
** ت : الثاني ، التصويب من ب ، ظ .
(١٥) * ت : بعضهن ، تصويب ب ، ظ .
(١٨) * ت : المغرب ، البديل من ب ، ظ .
(١٩) * زيادة من ب ، ظ .
(٢١) * ت : وزائدة فاحسبها لها ، التصويب من ب ، ظ .

٢٣ إنْ كنتَ يوماً مَجنِباً فَكُلَّما ... يَنْقُصُ عَنْكَ الجاهُ إصْبَعْ فاَعْلَمَا

٢٤ أَنَّ مَسَافَتْكَ تزيدْ أَزْوَامَا ... أعدادُهَا ثَمانِيَهْ تمامَا

٢٥ ما بينَ برٍّ المَطْلَعِ والنَّاتِ ... تُضافُ فوقَ الأَصْلِ بالثَّبَاتِ

٢٦ وبينَ* جامِسْ قُلْهَ والدِّيْبَه** ... مايةُ زام ثابتَهْ*** مُصِيْبَه

٢٧ وغيرُ هذا في الحسابِ يأتي ... لكنَّ هذا أَثْبَتُ الحساباتِ*

62 [المسافات على رؤوس جاه احدى عشرة]

٢٨ وبعدَ هذا إنَّني آخْتَصَرْتُ ... مسافةً في الحاوِيَةْ نَظَمْتُ

٢٩ في جاهْ أَحَدْ عَشْرَهْ وخَمْسٍ وآصْبَعْ ... وفَرْقَدِ إصْبَعْ ، إليكَ فاَسْمَعْ

٣٠ إذْ هذهِ الروسُ عليها المُعْتَمَدْ ... عندَ جميع الخَلْقِ مِنْ أَهْلِ الرَّصَدْ

٣١ وبينَ راسْ دَوَائرٍ والقَحَّازْ ... إثْنَا عَشَرْ بالمولمِ الرزَّازْ*

٣٢ أَمَّا مِنَ القَحَّازِ فَهُوَ عندي ... خَمْسَهْ وتسعونَ لراسِ الحدِّ

٣٣ وبينَ راس الحدِّ أيضاً وزَجَدْ ... أزوامُ يا خِيْ أربعونَ بالعَدَدْ

٣٤ وبينَ كَنْبايَهْ وهذا* الراسِ ... عشرونَ زاماً لا تَكُنْ بناسي**

٣٥ وبينَ كَنْفَارٍ وشاتي جامِ ... خَمْسَهْ وعشرون مِنَ الأَزوامِ

٣٦ وبَيْنَ رَاسْ دوايرٍ يا فتى ... وبينَ* شاتي جامَ كُنْ مُلْتَفِتَا

٣٧ مَايْتَانِ مَعْ تسعينَ زاماً صافِيَه ... وزِيْدَهَا زامين تَبْقَى وافِيَه

٣٨ أَمَّا قياسُ الصِّين ثمَّ المَغْرِبِ ... فَمَا ضَبَطْنَاهُ مِنَ المجرَّبِ

٣٩ والقُمْرُ أيضاً قطُّ ما توافَقَا* ... شَيْخانِ في أزوامِها وحقَّقَا

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(٢٦) * ب ، ظ : ما بين .

** ت : في الذيبه ، تصويب ب ، ظ .

*** ب ، ظ : ثانياً .

(٢٧) * ب ، ظ : للحساب .

(٣١) * ت : الزرزاري ، ب ، ظ : الدرار .

(٣٤) * ت : وبين ، البديل من ب ، ظ .

** ت : عشرون زاماً لا تكن بناسي ، ب ، ظ : عشرون يا ذا لا تكن بناسي .

(٣٦) * ب : وبيتا .

(٣٩) * ت : والقمر ايضاً ما اتفقا ، ب ، ظ : والقمر ايضا ما توافق .

63 [المسافات على رؤوس جاه خمس]

٤٠ أمَّا تـواهيْ بينهـا والجُـزْرِ* أعني بـأَنْدَمَنْـدِ جُزْرِ البحْـرِ
٤١ إثنانْ وثَلْثونَ ومنْ صَدْرافَتَنْ* لِلْجُزْرِ اثْنانِ وخَمْسون مُؤتَمَنْ**
٤٢ وبينَ صدْرا فَتَّنٍ في البَرِّ وبينَ مَنْجلورَ هِيْ يا عَمْري*
٤٣ أزوامُ قَدْ قالـوا ثلاثـونَ فَلا تكـونَ في شكٍّ ولا مُفْتَشِـلاَ
٤٤ ومَـنْجَـلُورٌ بيـنَـهـا والـفـالِ عشرونَ زاماً جَعَـلَ الأوالي*
٤٥ أمَّا مِنَ الفال لـراسِ مامي سبعونَ مَعْ زامينِ خُذْ كلامي
٤٦ ومنْ سُقُطْرَهْ في حسابِ الدِّيْرَه الى ذُبَابٍ مَعْ ذوي البصيرَه
٤٧ سبعونَ* زاماً وحسـابٌ ثاني يَـحْـكُـمْ بـهـاأقَـلُّ رُبَّـانِ
٤٨ ويــرُّ جَمْلَهْ وذبـابٌ بينـهَـا ثمـانِيَهْ أزوامِ إفهَمْ شـرحَهَـا
٤٩ وبينَ جـاهِ خَمْسَـةٍ تـواهي وبينَ بَرٍّ جَمْلَةَ آعني ها هي
٥٠ مايْتَانِ مَعْ ستِّينَ جاءَتْ في العَدَدْ* وفـوقَهـا أَرْبَعَـةٌ لهـا مَـدَدْ**

64 [المسافات على رؤوس جاه اصبع]

٥١ أمَّا مِنَ السِّيفِ الى كَنْدِيْكَلِ أعني بجاهِ إصْبَـعٍ يـا أمَلِي
٥٢ خَمْسَهْ وتسعونَ* هِيَ المَسافَه أزوامَ خُذْ هذا وَدَعْ خِـلاَفَه
٥٣ وبينَ كَنْـديكَـلْ وَسَـرْنَـدِيبِ عشرونَ زاماً زِدْتَ يـا أديبي*
٥٤ إثْنَا عَشَرْ زاماً*حكاها مَنْ جَرَى والبعضُ قالَ غيرَ ذا وحرَّرَا**

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(٤٠) * ب ، ظ : وبينها وبين الجزر .
(٤١) * ت : مدار فمين ، تصويب ب ، ظ .
** ت : وخمسين حساب الموتمن ب ، ظ : مع خمسين صدقاً موتمن .
(٤٢) * ت : تعمري ، التصويب من ب ، ظ .
(٤٤) * ب ، ظ : جعلوا وآل .
(٤٧) * ب ، ظ : ستون .
(٥٠) * ت : ستين ازوام عدد ب : ستين عدد ، البديل من ظ .
** ب ، ظ : مسد .
(٥٢) * ب ، ظ : ماية .
(٥٣) * ب ، ظ : والسيلان ثمانية مع عشرين زامان .
(٥٤) * ت : ازوام التصويب من ب ، ظ .
** ب ، ظ : فاحذر ا .

٥٥ لأنَّـهـا إقليـمُـهَـا كـبيـرْ | لهـا حسـابـاتٌ تـرى كثيـرْ
٥٦ وبـينَ بـرٍّ قَـدْحِ والـفـالِ | فَـالِ السِّيامِ فـاْعْتَبِرْ مقـالي
٥٧ أعـني بـجـامِسْ فُـلَهٍ أزوامْ | عشرون زاماً بل أكْثَرْ يا همامْ*
٥٨ وبينَهـا وبيـنَ طـوطـاجـامِ | اِثنـانْ وسبعونَ* مِنَ الأزوامِ
٥٩ وبينَ بـرٍّ قَـدْحِ والسِّيفِ | الـطويـلِ اِفْهَمَـنَّ تَكْـيِيْـفي
٦٠ لمـائَتَـانِ مَـعْ ثـلاثـهْ عَشَـرْ* | في ذا الحسابِ البَيِّنِ المُشْتَهَرْ**

65 [المسافات على رؤوس فراقد اصبع]

٦١ أمَّـا مِنَ الجزيـرةِ الخضـراءِ | لِكَـرْمَ دِيْـوَةَ* آسْتِمـعْ إنبـائي
٦٢ مـائهْ وخمسـونَ بلا نُقْصـانِ | بَلْ هِيْ تزيدُ في حسابٍ ثاني
٦٣ منْ كَـرْمَ دِيْوَةٍ لجـاوَهْ سُنِدْ* | مايةُ زامٍ مَعْ ثلاثينَ عُدِدْ**
٦٤ وصـارَ مـا بينَ الجـزيـرتينِ | جـاوةَ والخضـراءِ بـالتعيينِ
٦٥ ثَلْثمـايـةِ أزْوامِ لـلمهـذَّبِ* | تَنْقُصُ عشرين بهذا الواجبِ**

66 [استخراج مسافات جميع البحر]

٦٦ جَعَلْتُهـا مسـافـةً فـاْتْبَـعِ | منْ جاهْ أَحَدْ عَشَرْ لِفَرْقَدِ آصْبَعِ
٦٧ إذا تَـأَمَّلْهـا الخبيـرُ العـاقِـلُ | ومَنْ له في التَّرْبَنَهْ مَدَاخِـلُ
٦٨ شتَّ مسـافاتِ جميـعِ البَحْر | منها وكلٌّ يَفْتَقِـرْ* في العُمْرِ
٦٩ إذْ لَمْ تَكُنْ مسافةٌ مجهـولَه | فـي جُـزُرٍ شَـارِدَةٍ* قَـلِيْـلَه

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(٥٧) * ب ، ظ : عشرون بل أكثر ، مصحح اربعة .

(٥٨) * ت : ست وستون . والبديل من ب ، ظ .

(٦٠) * ب ، ظ : ثم اربعة وعشرون . ت : مع ثلاثة عشر والجوازات الشاذة واضحة .

** ب ، ظ : المشتهرون .

(٦١) * ب : لكرمدنوا .

(٦٣) * الجاه بالسند . التصويب من ب ، ظ .

** ت : عدد ظ : عدوا ، البديل من ب .

(٦٥) * ت : للمهدر ، البديل من ب ، ظ .

** ت : الموحر ، البديل من ب ، ظ .

(٦٨) * ت : معتصر ، البديل من ب ، ظ .

(٦٩) * ت : شاذة هنا ، ب ، ظ : ساردة .



الفصَل التاسع

في معرفة قياس الجاه والفرقد والنعش عند استقلال الصرفة ، وهو قياس الأصل على جميع الرؤوس المشهورة في سواحل البحر المحيط الواغل في الشمال ، وهو بحر الهند ، والسيام وبر العرب والسواحل . والله أعلم بالصواب .

67 [قياس الجاه من ارتفاع احدى عشرة اصبعاً الى ارتفاع اصبع]

١ أمَّا قياسُ الجاهِ* يا مهذَّبَا — قياسُهُ الأَصْلي الذي قَدْ جُرِّبَا
٢ إذا آسْتقلَّ الصَّرفُ* فوقَ الراسِ — واسْتوى** فراقدُ القياسِ
٣ جُدَّةٌ ثُمَّ الحدُّ قالوا وزَجَدْ — أيضاً وفي البَنْجَالتينِ بالعَدَدْ
٤ إحدى عَشَرْ آلْجَاه بلا تكذيبِ — فجرِّبُوه* يا وذي التجريبِ
٥ رَكَنْجُ مَعْ جيجَهَرَ* المشهورَه — والدِّيْوَ مَعَ المَحْرَمِ مَعْ**مصيرَه
٦ عَشْرٌ ، وفي مُوْمْ وكَنَارِكْ* تِسْعَه — وتانَةٌ** أيضاً ومَدْرَكَهْ مَعَا
٧ مرابطِ الخَيْلِ ، فأمَّا الجُزُرْ — جُزْرُ سَمَرْ وراسُ حَمْضَهْ شُهِرْ

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(١) * ب : قياس البحر مصحح قياس الهند وفي هذا .
الهامش بحر الهند ، ظ : قياس الهند .
(٢) * ب ، ظ : في مستقل الصرفة .
** ب ، ظ : واعتدلا ، ت : استويا .
(٤) * ب : قد جربوه الى ، ظ : قد جربوا
(٥) * ب ، ظ : جهنجر .
** ب ، ظ : مع محرم كذا .
(٦) * ب ، ظ : وقناف .
** ب ، ظ : مهايم .

٨ وصَـوْقِرَهْ وبُوْرِيَا يـا صـاحِ ... إسْمَعْ كلامي تَحْظَ بالصَّلاحِ

٩ الجـاهُ ذُبَّـانـانِ فيهُمْ زاهي ... ومثلُهُمْ وَيَسَـا مَعْ* سَتْـوَاهي

١٠ أمَّا بِنَجْراشي* مَعَ جُدَاوَرِي** ... ودَنْـدَبَـاشي سَبْعَـةٌ وسَاجِـرِ

١١ والجُزْرُ والحَرْدةُ* سَبْعَهْ قِيْسُوا ... والبعضُ قـالـوا إنَّـهُ نفيسُ

١٢ أمَّـا أزادِيْـوَ فَسِتَّـهْ فـآدْرِ ... ومَـرْطَبَـانْ ومُتْبَلِي والشِّحْـرِ*

١٣ أيضاً ورأسُ الخلَّبِ المعروفِ* ... بهِ كذاكَ الجاه ستَّهْ يُوْفي

١٤ وإنْ يَكُنْ عندَ اعتدالِ الصَّرْفِ* ... الجـاهُ خَمْسٌ اِفْهَمَنْ وصفي

١٥ فَهؤلاءِ الـروسُ يـا ضـرغـامي ... ذُبَـابْ ودارُ زَيْـنَـةٍ ومـامي

١٦ ومَنْجَـلُورُ ثُمَّ راسُ الـفـالِ ... أَوَّلُـهُ مِنْ شـاطىء الشَّمـالِ

١٧ أيضـاً وبرُّ النَّـاتْ وصَدْرافَتَّنْ ... وأنْـدَمَنْـدُ ثُمَّ فـالي فـآتْقِنْ

١٨ وشَهْـرِنُـوًا ثُمَّ جُـزْرُ بَـرْني ... أَوَّلُهـا منَ الشمـالِ أَعْـني

١٩ فـإنْ تُـقَـابِلْهُـنَّ يـا حبيبي ... تَبْدُ سحائِبْ* قُطْبِكَ الجنوبي

٢٠ والجـاهُ في تَنَـاصَري ذُبَّـانْ ... وتِـرْمَـلا وَاصِـلْ* وأنْـدَرْوَانْ

٢١ وقـابُقَـات* ثمَّ جَـرْدَفُـونـا ... كهؤُلاءِ الـروسِ بَلْ يـوفونـا

٢٢ والمَرُّ* ثمَّ شَنْكَلْ**. كُنْ داري ... وناكَ فَتَّنْ*** ثمَّ ناكَ بـاري

٢٣ أيضاً مُرَاشي طَرَفُ السيلانِ ... ثمَّ قَرَايا* خدمةُ الـرُّبَّـانِ

٢٤ وكُشِيٌّ* الجـاه ثلاثَـةْ** وافيَه ... حتَّى على النَّتْخات تلقى العافيَه

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(٩) * ت : ومتهم وسامح ، التصويب من ب ، ظ .

(١٠) * ت : نجراشي ، ب ، ظ : بنكراشي .

** ت : حدراوي ، التصويب من ب ، ظ .

(١١) * ت : الحرده ، ب ، ظ : الجزيرة .

(١٢) * الخلل في القافية واضح .

(١٣) * الخلل في القافية واضح .

(١٤) * ب ، ظ : يكن عند اعتدال الصرفه .
ت : في استقلال .

(١٩) * ت : سحاير ، التصويب من ب ، ظ .

(٢٠) * ت : واسي ، ب ، ظ : واشي .

(٢١) * ب : كابكات .

(٢٢) * ب ، ظ : الريم .

** ب ، ظ : شنكل ، ت : مسحل .

*** ب ، ظ : ناك فتي .

(٢٣) * ب ، ظ : قرايا ، ت : مريا .

(٢٤) * ب ، ظ : قيس فيهم ، ت : كشي .

** ت : ثلاث مائة ، التصويب من ب ، ظ .

٢٥ وتَـاكُوَا ايضـاً ومَنْجَلْ فُـوْلَـه — وفَـانُوَهْ* عنـدَ الملا مَعْقُـولَـه
٢٦ هيْ إصْبَعَانِ وشَلاوَمْ* يا ولي — وقايلٌ والهرُّ مَعْ كُوْلَمْ** مَلِي
٢٧ جَامِسْ فُلَهْ وقَدح إذْ يَبْـدُوا — والسِّيفُ والسِّيلانُ إصْبَعْ فَرْدُ

68 [قياس الفرقدين من ارتفاع سبع اصابع الى ارتفاع اصبع]

٢٨ أمَّـا تَلَنْجُ مَـعَ دَنْـجٍ دَنْـجٍ — مَـعَ شُمُـطْرَهْ ثُمَّ مَهْكُفَنْـجٍ
٢٩ ومنْ نواحي الزَّنْجِ فَشْتُ* مُقْبِلِ — قِسِ الفراقدْ سَبْعَ ثُمَّ عَوِّلِ**
٣٠ والفرقدانِ ستَّةٌ في المروتِ — أيضاً وفي فَنْصورَ خُذْ إشارتي*
٣١ وقيــلَ في عَـارُوْهْ ومــلاَّقَـه — وذيلِ بَرْني عنْدَ ذي الحذاقَه
٣٢ وقيلَ في أُدْوَا وفي مَقَاصِـرِ — هوْ راسُها الجاهيْ فلا تُكَابِرِ
٣٣ وبَرْهَلَهْ ، شنفا* وسَنْجـافُـورُ — وفِشَّلَمْ** فـافْهَمْـه يـا خبيــرُ
٣٤ وسَلْتَ زَنْجي ثمَّ في مَنْقَابُوا — ثُمَّ بَرَاوَهْ خَمْسَةٌ قدْ صابُـوا
٣٥ وقسْ إذا مـا آعْتَدَلَ الفـراقِدُ — ذُبَّانَ في مَلْوَانَ [وهْو]*واكِـدُ
٣٦ ثُمَّ فَلِيْ بَنْـجَ* وَأَنْـدَرْفُـوْرَه — أَرْبَعَـةٌ عنـدَ المـلا مَشْهُـورَه
٣٧ حـينئـذٍ يـا أيُّهـا المهذَّبُ — تَرَى نجيمَ* الصَّرْفِ قدْ يَنْتَصِبُ
٣٨ في الفَلَكِ الأَصْلِيْ وكلَّ نَجْمِ — إذْ قُطُبُ الشَّمالِ فَوْقَ اليَمِّ
٣٩ **أمَا ترى الطائر في برِّ العَرَبْ — يبقى يمانيًا ومنْ ثَمَّ آنْتَصَبْ***

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(٢٥) * اسقاط في ت ، البديل من ب ، ظ .
(٢٦) * ب ، ظ : في اصبعان وشلاوم ت : وشتلاكم .
** ب ، ظ : كولت .
(٢٩) * ت : فشر ، التصويب من ب ، ظ .
** ت : عودي ، التوصيب من ب ، ظ .
(٣٠) * ب ، ظ : قنصور ثم اشارت .
(٣٣) * ب ، ظ : سيفي .
** ب ، ظ : وفيم .
(٣٥) * زيادة من ظ .
(٣٦) * ت : نج ، التصويب من ب ، ظ .
(٣٧) * ب ، ظ : نجوم .
(٣٩) * هذا البيت مقحم في النص ، وحذفه يضبط عدد ابيات هذا الفصل حسبما جاء في البيت ١٠٢ و١٠٣ من الفصل الحادي عشر من الحاوية .

٤٠ وَسْطَ السما هناكَ كُنْ عَلِيمْ دليلُهُ المَعْقِلُ وَالظَّليمْ
٤١ وفي نواحيْ الزَّنْجِ فَهْوَ شامِي يكفيكَ وصفي فاتَّخِذْ كلامِي
٤٢ مِنْ ثَمَّ للشَّمالِ ياذكيُّ فأفضلُ الكواكبِ الجُدَيُّ
٤٣ أَمَّا كِتاوْه* ثُمَّ سُنْدَهْ باري وأَنْدَلُوسَ ثُمَّ مُوسى باري
٤٤ ثمَّ مُلُوكُوْ قِسْ بها* الفراقِدْ ثلاثةً جَرَّبها المُعَاوِدْ
٤٥ وقد رُوِيْ أَنَّ مُلُوْكُوْ لَمْ يَكُنْ في ذا المكانِ اِفْهَمِ النَّظْمَ وَصُنْ
٤٦ ومنْبَسَهْ ثُمَّ زَرِيْن المُغْزِرَهْ سِتُّونَ زاماً هيْ آصْبَعَانِ فَآخْبَرَه*
٤٧ وظهرُ جاوَهْ قد رُوِيْ ولاسَمْ ثمَّ جنوبيُّ مقاسرْ فَأفْهَمْ
٤٨ جَرْشِيْكُ* ثُمَّ جَاوَةٌ والخَضْرا** بإِثْرِ باري***اِسْمُهَا في الذكرى
٤٩ وكَرْمَ دِيْوَهْ* ثُمَّ بَنْدَرْ جَاوَه فراقدُ آصبَعْ اِحْفَظِ التِّلاوَه

69 [قياس النعش من ارتفاع اثنتي عشرة اصبعاً الى ارتفاع اصبع]

٥٠ وسَرْبَيَهْ* ، جزيرةُ فالي وجاوةُ ومَنْفِيَهْ بالهالِ**
٥١ هُمْ نَعْشُ اثني عشر بالدلالِ إفْهم نَظْماً يُشبهُ اللآلي*
٥٢ والحَرَّباء ثمَّ خُوريا بَلْ* ايضاً وراسُ الملحِ يا مُسايلْ
٥٣ [وفايَدَنْ وساسيَ تَيْمور وقيلَ في كِلْوَةَ يا نِحْرِيرْ]*
٥٤ وأَنجزيهْ ثمَّ هَنْزواني مَعَ مُلالي ثمَّ جُزر [دُمُوني]*

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(٤٣) * ت : عتاوه ، التصويب من ب ، ظ .
(٤٤) * ت : قيس فيهم ، ب ، ظ : قاسوهم .
(٤٦) * ت : فاخره ، التصويب من ب ، ظ .
(٤٨) * ب ، ظ : حوشيك .
** ت : الحصرا ، ب : الحضرا ، التصويب من ظ .
*** الاصول : قاري .
(٤٩) * ت : ديوه ، ب ، ظ : دنوا .

(٥٠) * ب ، ظ : تيموريانه .
** ب ، ظ : بالهال ، ت : والفال .
(٥١) * ب ، ظ : اللآلي ، ت : الزلال .
(٥٢) * ت : والحري بحلم جزر بابل ، البديل من ب ، ظ .
(٥٣) * زيادة من ب ، ظ .
(٥٤) * آخر البيت غير مقروء .

٥٥ والنَّعشُ فيهمْ كلُّهم إحدى عَشَرَ — فغايةُ* الفالِ هنا عندَ الورى

٥٦ وجُزرُ* تيمورٍ وعنـدَ** القُمْـرِ — بَنْدَرْ بني اسماعيل نَعْشُ عَشْرِ

٥٧ أيضـاً ولـولجـانُ* والأخـوارُ — وقيـلْ سُفالَـهْ أيُّهـا البيـطارُ**

٥٨ ونعشُ تِسْعَـهْ بلدةُ السُّلْطانِ — والإسمُ بيمـارُوْهَ مِنْ زَمـانِ

٥٩ وفي مَغْيِبِهَـا تـرى أنـامِـلا — والمُلُّ هُوْ بَنْدَرُ دَرويشَ عَلا

٦٠ ومَنْـزِلاجي*ثمَّ سَـعْـدَهْ قيـلا — تـزيـدُ عَمَّا شَـرَحـوا قليـلا

٦١ والنَّعشُ ذُبَّانانِ قد شاعَ* على — جزيرةِ العَنْبَرِ** مع كلِّ المَلا

٦٢ بَنْدَرْ شَجاجي ومُسَنْبيجي* معا — وبنـدرُ النُّوْبِ لقـولي آسْمَعَا

٦٣ وإنْ على الجُونِ تقِسْ [ذا]* والسُّهَا — إذا اسْتَقلَّ الصَّرفُ ، سَبْعاً تَلْقَها**

٦٤ على نسيمٍ ثمَّ في مَـلْوِيْنِ — وآخـرِ الأخـوارِ بـالـتَّعْـيِيـنِ

٦٥ وفي سُفالَهْ مَعْدَنِ التِّبْرِ* فَقِسْ — نعوشَ سِتٍّ من علومي آقْتَبِسْ

٦٦ أيضاً وفي بندر شِعبانٍ وفي — مَنْكارَ سِتَّهْ أيُّها الخِلُّ الوفي

٦٧ [بَنْدَر هَدودَهْ ثمَّ بندرْ كوري — ثمَّ رفاتي خَمْسُ في المذكورِ]*

٦٨ بندرُ كوسَ ثمَّ بنـدرْ قاسِمِ — وكَنْـدلي أربـعـةٌ للعـالِـمِ

٦٩ وفي بنـادِرْ هَنْتَ ثمَّ تَلِّيني* — وأبْيَـه** في القُمْـرِ يـا معيني

٧٠ كلُّهمُ ثلاثُ مع تيـري رجا — هيْ أشْهَرُ الجُزْرِ اللواتي للنَّجا

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(٥٥) * ب ، ظ : بغاية .

(٥٦) * ب ، ظ : نعش .

** جميع النسخ : بعد .

(٥٧) * ب ، ظ : لولوجاز .

** ب ، ظ : سوفاله بانتظار .

(٦٠) * ب ، ظ : والمنزلاي .

(٦١) * ت : سامح ، التصويب من ب ، ظ .

** ت : العبر ، التصويب من ب ، ظ .

(٦٢) * ت : شهالي وسهيل . ب ، ظ : شهالي ومسنبيحي .

(٦٣) * زيادة من ب ، ظ .

** ت : يلتقي ، التصويب من ب ، ظ .

(٦٥) * ت : التير ، التصويب من ب ، ظ .

(٦٧) * زيادة من ب ، ظ .

(٦٩) * ت : هيث ثم بليني ، ب ، ظ : هنت ثم تليني .

** ت : انته ، التصويب من ب ، ظ .

٧١ وفي هَـدودَهْ نَعْشُ إصبَعَيْنِ ثمَّ تِمَارُوهْ تُكْفَ* شرَّ البَيْنِ

٧٢ بَنْـدَرُ كُوْسَ ثُمَّ غُبَّةْ كوري مع بندرِ الشَجْرةِ [ذا]* المَشْهورِ

٧٣ نَعْشُ آصْبَعٍ [قد]* أرَّخوهُ العُلَمَا ولا سوى هذا يرونَ فافْهَما**

٧٤ وإنْ تَقِسْ بِـآخِرِ الـدامـوتي على بني نَعْشٍ قُبَيْلَ الفَوْتِ

٧٥ نصفُ آصْبَعِ العَنَاقُ ثُمَّ الجُونْ ولا سُـهَـيْـلُ دابـر* وركـونْ

٧٦ لأنَّ ذا* آخـرُ بـرِّ الـزِّنْـجِ وبابُ بَرِّ الغـربِ والإفْرَنْجِ

٧٧ [ولا جَنُـوبِيْـهِ سـوى الأرقـاقْ وظُلْمَـةٍ يعلمُهـا الخَـلَّاقْ]*

٧٨ والبعضُ قـالوا هـذهِ جـزائـرُ وآخرُ المُلِّ خَمْسَةٌ يا خـامِرُ*

٧٩ وآخْتَلَفَ النَّقْـلُ مِنَ الـرواةِ وآسْتَغْفِـرُ الله مِنَ الـزلَّاتِ

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(٧٢) * زيادة من ب ، ظ . وفي ب ، ظ : بندر الشحر .

(٧٣) * زيادة من ب ، ظ .

** ب ، ظ : يزور يسمى .

(٧٥) * ب : ذابر .

(٧٦) * ت : في ، التصويب من ب ، ظ .

(٧٧) * زيادة من ب ، ظ .

(٧٨) * ت : يا مشاور . البديل من ب ، ظ .

(٧١) * ت : تيهاروه نكوش ، ب ، ظ : تمادى تكف شر .

الفصل العاشر

في معرفة تغني عن الاستواءات وقطع الأزوام . وذكر ما يتعلق بالربان ، كتفصيل القلع ، ومعرفة جري الماء في الباحة والبحر المحيط الواغل بين برِّ السودان والهند والصين . والله أعلم بالصواب .

70 [آفات التربنة]

١	وآلإستــواءَاتُ فَـجَـرِّبـوهــا	لكنَّمــا* النُسَّــاخُ غَيَّـرَوهــا
٢	وصَيَّـروا فـي التَّـرْبَنَـهْ آفـاتِ	مِنْ عَصْرِ إسْكَنْدَرْ لذي الأوقاتِ
٣	ويُكْتَبُ العِلْمُ مِنَ السَّكْـرانِ	مِنْ غَيْــرِ إثبـاتٍ وإسْتيقــانِ
٤	والعُمْرُ ما يُسْعِدُني أنْ أسْعى*	في تَجْرِبَهْ هذي الفُنونِ جَمْعا
٥	ولَمْ أكُنْ أجْعَلُ في المَنْظومَه	علمـاً* بـلا تَجْـرِبَـةٍ مَعْلومَـه
٦	لكنَّني أذْكُـرُ شيئـاً يُعْتَبَـرْ*	معروفَ مَعْ كلِّ الأنامِ مُشْتَهَرْ

71 [معرفة تغني عن الاستواءات وقطع الأزوام]

٧	عليـكَ بـالجَــاهِ وبـالفَــراقِـدْ	والنَّعْشُ إنْ غابوا إليكَ واكِدْ

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(١) * ب ، ظ : لكنها .

(٤) * ت : يسعد في ان يسمى ، البديل من ب ، ظ . واسعد هنا بمعنى ساعد .

(٥) * ب ، ظ : علمي .

(٦) * ب ، ظ : معتبر .

٨ وحِسْبَةُ الدَّيراتِ والمجاري — إقْطَعْ لأزوامِكْ* بهمْ يا جاري
٩ وإن تـرى نجمينِ إسْتَقـلاّ — عَن حِسْبَةِ القياسِ لا تَخَلاَّ
١٠ من حطبةِ اثني عَشَرْ إصْبَعْ — وهم على فـطيَّةِ المُشَيَّـعْ
١١ فَقِسْهُما وَقِسْ بِعَجْزِ المَرْكَبِ — نَجماً وَقَيِّدْ ثُمَّ إجْرِ واكْتُبِ
١٢ نقصانَ نَجْمِ العَجْزِ أمَّا هَوْلا* — بحـالها قيـاسُهـا لا يَخْـلا
١٣ فكلَّما غاصَ نُجَيْمُ التَّفـر* — إصبـعْ فَحَقِّقْ أيُّها المُسافِرْ
١٤ لأنَّ مَرْكَبَكْ قَطَعْ ثمانيـه — أزوامِ لَمْ تَنْقُصَ بل هي وافيه
١٥ أمَّا الذي قَيَّدْتَ* في الفَطِيَّه — بحـالـه افْتَهِمِ الـوصيَّـه
١٦ فيها سويَّ الطائرِ ما يليه* — أخنانُ سِتَّهْ فاعْملوا عليه
١٧ كفاك* هذا في جميعِ البَحْرِ — إنْ كُنْتَ فَتَّاكاً عميقَ الفِكْرِ
١٨ دليلُ ذا نَقْصُ الجُدَيِّ* فاسْمَعْ — ثمـانيهْ أزوامِ كـلَّ إصْبَعْ
١٩ لَكِنْ ازاء* شاهِدِ الجُـدَي — نجمُ فُوَيْقَ** الراسِ يا أُخَي
٢٠ وذي الشُّهودُ فَوْقَ وَجْهِ الماءِ — والحكمُ بالتحقيقِ بالسَّواءِ*
٢١ والتِّيرُ والواقعُ في برِّ العَرَبْ — [من]* ماميَ للحدِّ ما فيه سَلَبْ**
٢٢ وسائرُ الأقطابِ فيها الخَلَلُ — آفـاتُـهُ مَنَ الَّذينَ أَوَّلُـوا*
٢٣ والتِّيرُ والذِّراعُ ثُمَّ النَّسْرُ — مسيرُهُمْ فبالسوا فـادروا

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(٨) * ب ، ظ : لازوامك ، ت : ازوامك .

(١٢) * ت : ماهولا ، التصويب من ب ، ظ .

(١٣) * ب ، ظ : التفر .

(١٥) * ت : فيه تبقى ته ، التصويب من ب ، ظ .

(١٦) * ت : عليه ، التصويب من ب ، ظ .

(١٧) * ت : كذاك . ب ، ظ : اذا .

(١٨) * ت : انقص الحد ، التصويب من ب ، ظ .

(١٩) * ت : ان البديل من ب ، ظ .

** ت : فوق ، البديل من ب ، ظ .

(٢٠) * ب ، ظ : واحكم بتحقيق على السواء .

(٢١) * زيادة من ب ، ظ .

** ب ، ظ : سبب .

(٢٢) * ت : آفته من الدنن اولوا ، ب ، آفاته من الدير الأول ، ظ : آفاته من الدين الأول .

٢٤ فـإن تَغِبْ شِعْـراءُ بـالحـدِّ | فـالنَّسْرُ والـذِّراعُ كلٌّ عنـدي
٢٥ تسعُ أصابِـعْ والذِّراعُ اليمْنى | في غربِهِ* والنَّسْرُ يا ذا الفِطْنَهْ
٢٦ فكلَّما غاصَ الجُـدَيُّ إصْبَعْ | أَنْقِصَ* أيضا النَّسْرَ رُبْعَ إصْبعْ
٢٧ أمَّا الذِّراعُ فهـو في البرِّينِ | ينقُصُ نِصفـاً نـظراً* بـالعينِ
٢٨ في زَجَدٍ إنْ قِسْتَ نَجْمَ التِّيرِ | عندَ طلوعِ الكاسِرِ المَشْهورِ*
٢٩ خَمْسَ أصابعْ والذِّراعُ آثنا عَشَرَا | يَنْقُصُ نِصفاً في التِّرفَا شَهْرا*
٣٠ قِسْهُ الى العادةِ في القياسِ | غـايتُهُ* مَشْهـورةٌ في** النَّاسِ
٣١ إرْقَـاقُـهُ يـا صـاحِ والإغْـزازْ* | مثـالُـه إنْ كُنْتَ يـا ذا جَـارْ
٣٢ جـارٍ مِنَ الهِنْدِ لبـرِّ العربِ | وزادَ في هذي الكواكبْ فآحْسبِ
٣٣ رُبْعاً فآعْلَمْ ما* منَ الإزوامِ | قَـطَعْتَ عَشْراً كُنْ بـالتَّمـامِ
٣٤ إنْ [كان]* مجراكَ على الهيرانِ | مَيِّزْ حسابي** وآفْهَمِ المعاني
٣٥ أمَّا الحماراتِ بجاهِ آحدى عَشَرْ | خَمْسٌ وأربَـعْ* للمربَّـعْ ذُكِرْ
٣٦ وَقِسْ لِسَهْمِ القوسِ والسُّهَيْلِ | أربعـةً بـالحـدِّ يـا خـليلي
٣٧ وكلَّمـا مِلْتَ لَهُمْ بـالنَّقْـلِ* | مزيدَهُمْ** نقِّصْ قياسَ الأصلي

72 [تفصيل قلع المركب]

٣٨ وإنْ تُرِدْ تفصيلَ قلعِ* المركبِ | فأْتِ به في موضعٍ منسحبِ**

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(٢٥) * ب ، ظ : غربه ، ت : غروبه .
(٢٦) * ب ، ظ : انقصْ ، ت : نقص .
(٢٧) * الاصول : نظروا .
(٢٨) * ت : الكاثر المنير ، البديل من ب ، ظ .
(٢٩) * ب ، ظ : ينقص عشرا فالترفا شهرا .
(٣٠) * ت : عادته ، ب ، ظ : غاية .
** ت : عند ، البديل من ب ، ظ .
(٣١) * ب ، ظ : ارى فاقه ايضاً مع الاغزار .
(٣٣) * ب ، ظ : ان .
(٣٤) * زيادة من ب ، ظ .
** ت : حسابك ، البديل من ب ، ظ .
(٣٥) * ب ، ظ : وخمس .
(٣٧) * ت : تكاملت لهم بالقتل ، التصويب من ب ، ظ .
** ت ظ : من يدهم ، التصويب من ب .
(٣٨) * ت : قطع ، التصويب من ب ، ظ .
** جميع النسخ : مصطحب .

٣٩ وآغْــرُزْ* بـه أربعــةً أوتــادَه	مُسْتَعْمِـلاً فيه قيـاسَ العـادَه
٤٠ وأَنْشِرِ المُحـوَحَ* والشقـائقـا	وبعدَ هذا مُرْ بِهِنَّ** الراتِقا
٤١ فإنْ رَتَقَتْ الكلَّ بعد الذَّرْعِ	فمُـدَّ عـودينِ بعـرْضِ القِلْعِ
٤٢ بالدَّاسِجَينِ الشَّكِّ* والجامـورِ	لِيَشْحَطَ** الداسجُ بالتَّمْريـرِ***
٤٣ وبعــدَ مـدِّ هــذه العيــدانْ	مِنْ قَبْلِ فِعْلِ كلِّ شيءٍ كانْ
٤٤ فـأَعْلمِ الـدُّرورَ قبـلَ* الـرَّكِّ	لا يَخْتَلِفْ في الذَّرْعِ صفَّاً وآحْكِ**
٤٥ وآضْربْ مُحُوحَ يا أخي الدَّواسِجِ*	وقَيِّــدِ الــركَّ ولا تُحــاجِــجِ
٤٦ حــوالي*الكَنْجَــة في سَهْمَيْنِ	للجوشِ من خَمْسَةْ بغيرِ مَيْنِ
٤٧ أيضاً وفي الدَّامَنْ بِثَلْثِ شُقَّه*	وداسجُ [في]** الجوش فآعْرِفْ حقَّه
٤٨ وأَجْعِـلِ الركَّ ثـلاثـهْ أَسْهُمِ	مِنْ أربَعَهْ للنَّفْسِ* أرْتُقْ وآحْكِمِ
٤٩ حبـالُ هي* دواسجٌ سَمَّـوْهـا	وكلُّهــا بـالشَّحْطِ أحْكَمــوهـا
٥٠ وآدرأ* الى الداسجِ شَطَّ** الذيلِ	وآطْرِفْ*** لَهُ مُحَّا الى التفصيلِ

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(٣٩) * ب ، ظ : وزام فيه ، ت : واغرز فيه .

(٤٠) * ب ، ظ : وانشرح المحوج ، ت ، وانشر .

** ب ، ظ : وبعد هذا مر بهم ، ت : وبعد ذا الامر بهن .

(٤٢) * ت : بالراسجين الشك ، ب ، ظ : بذي سحير السيك .

** ت : يشحط ، التصويب من ب ، ظ .

*** في جميع النسخ : بالتحرير ، وهو تصحيف .

(٤٤) * ب : واعملوا الدور قبل ، ظ : واعملوا الدور قبيل .

** ت : منه واحك ، ب ، ظ : صفه واحك .

(٤٥) * ب ، ظ : واضرب يا أخي المحوح بدواسجي .

(٤٦) * ب ، ظ : حوالتي .

(٤٧) * ب ، ظ : لثامن شقه ، ت : ثالث شقه .

** زيادة من ب ، ظ :

(٤٨) * ت : لنفس ، البديل من ب ، ظ .

(٤٩) * ب ، ظ : من .

(٥٠) * ت : ودار ، التصويب من ب ، ظ .

** ب ، ظ : شطي .

*** ت : واضرب . والبديل من ب .ظ : وأطرف بمعنى اعطاه او الحق به .

٥١ وَٱرْتُقْهُ للمُخِّ* وكُنْ مُنْتَبِه** بعد حسابٍ سوفَ أُنْبيكَ*** به

٥٢ العرضُ كالفَرْمَنِ* أمَّا الطولُ** كـالدَّقَـلِ الزَّامِـلِ*** لا يَزولُ

٥٣ والجوشُ جزءٌ ناقصٌ عن أربعه هُوْ خُذْ* صفاتي وحسابي فاسْمَعَه

٥٤ والجَوشُ والدَّاسِج يا خيْ فَٱفْهَمَا رَكِّبْهُما* عن نِصْفِ عَشْرٍ لهما

٥٥ وثُلْثُ رَكِّ الدَّاسِج الفُوقاني للدَّاسِجِ* التَّحتي في البَيـانِ

٥٦ ونِصفُ ركِّ الجوش هو لِلشفره وقالَ ثُلْثا بَعْضُ أهلِ الخِبره

٥٧ وكَنْجَةُ الجَوشِ على الحِسابِ وزَيِّدوها* البعضُ يـا أصحابي

٥٨ كلُّ ذِراعٍ فيه ثُلْثَيْ إصْبَعِ وٱضْرِبْ دُرُورَكْ في الحَوْزْ* وارجعِ

٥٩ للفتِّ* والـرُّتْقَـةِ والـدَّامـانِ والنَّفْسِ فـارْتُقْه** بـلا تَواني

٦٠ فـهــذه تفـصيـلةُ المــراكـبِ عِنْدَ الجَوَشْكِ* والعَرَبْ يا صاحبي

٦١ والصِّينُ والإفْرَنْجُ ثُمَّ* الهِنـد كلٌّ له قَصدٌ سوى ذا القَصَدْ

٦٢ والبعضُ* منهمْ زَيَّدوا الدامان** والبعضُ مِنهمْ يتلافى*** البيانْ

٦٣ والقلْع* هو مُرَبَّعٌ قد** لاحا والقصدُ شيءٌ يحبسُ الارياحا

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(٥١) * ت : للميخ ، التصويب من ب ، ظ .
** ب ، ظ : متبته .
*** ب ، ظ : آتيك .
(٥٢) * ت : كالفرمل ، التصويب من ب ، ظ .
** ب : اطول .
*** ت : الدامر ، ب ، ظ : الدامل .
(٥٣) * ب ، ظ : وخذ .
(٥٤) * ب ، ظ : لكنها .
(٥٥) * ت ب : لداسج ، ظ : كداسج .
(٥٧) * ب ، ظ : وزيدة .
(٥٨) * ب : درورك والجون ، ظ : درورك واللجون ، ت : في الحور . والوزن غير مستقيم .
(٥٩) * جميع النسخ : لفشت .
** ت : والنعش وارجع ، ب ، ظ : والنفس وارفعه .
(٦٠) * ب ، ظ : الهند .
(٦١) * ب ، ظ : وبعض .
(٦٢) * ت : وبعض .
** ت : الداماني ، التصويب من ب ، ظ .
*** ت : تلثى ، ب ، ظ : تلافى .
(٦٣) * في جميع النسخ : والليل .
** ب ، ظ : اذ .

٦٤ لكنَّما الحكمةُ فيمن قد علا * عند فساد الريح ، فُلْكاً زلَّلا**

73 [معرفة جري الماء في الباحة]

٦٥ وآرْفِقَ* بالعدَّة بالمُطالَبَه وهَوِّنِ العسكرَ** في المُقالَبَه

٦٦ وإنْ تُرِدْ تَعْرِفَ جَرْيَ الماءِ وكَوْنَهُ* في الباحة الكبرء

٦٧ من مايةٍ الى ثلاثِ مايَه ترميكَ* في القطبِ الجنوبيْ المايَه

٦٨ ومن ثلاثِ مايةٍ في الشَّمالِ للتِّيرَمَا ثمَّ تُقِفُّ* ليالي

٦٩ مدَّتُهَا عشرٌ بهذا الموسِمِ وفي ثَلَثْ مائةِ أيضاً فآعْلَمِ

٧٠ هذي صفات* البحرِ أمَّا البَرُّ حاياتُ أوْ مدٌّ يكونْ أو جَزْرُ**

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(٦٤) * ب ،ظ : لكن الحكمة فيها علاّ .
** ب ، ظ : زلا .
(٦٥) * ب : ارفق في ، ظ : والرفق بـ .
** ب : واوهن في العسكر ، ظ : والوهن بالعسكر .
(٦٦) * ب ، ظ : لكونه .
(٦٧) * ت : ترضيك ، البديل من ب ، ظ .
(٦٨) * ت : تقف ثم ، البديل من ب ، ظ .
(٧٠) * ب ، ظ : مياه .
** ب ، ظ : في الجزر .

الفصل الحادي عشر

في تقويم يعرف به الساعات* ودخولها [والسبعة السيارة] وأزوام الجمة والنجوم والشمس والقمر ومعرفة النجم الزوجي ودليل الأخنان ودليل الطوفان وتاريخ الأرجوزة بما يوافق ذلك من الحساب . والله أعلم بالصواب .**

74 [معرفة المنازل الطالعة والآفلة]

١	ومَنْ أَحَبَّ مَعْرفة الـزامِ	وقسمـةَ* الجُمَّـة بـالتَّمـامِ
٢	فَلْيَفْتَقِـدْ* في جُمْلَةِ المَنـازِلْ	ما كان منها مُشْرِقاً** وآفِلْ
٣	والبَدْرُ باللَّيـلِ معاً والشمسُ	لكـلِّ ساعـةْ مَنْزِلَـةْ وسُـدْسُ
٤	وكـلُّ زامٍ فَـلَهُ الـمَـنـازِلُ	ثلاثُ أيضا ثمَّ نِصْفُ كامِلُ
٥	أوَّلَ مـا تَبْـدأُ في النَّيْـروزِ	كي تَعْـرِفَ البُرُوجَ بـالتَّمْييـزِ
٦	خُذْ ما مضى منه وزِدْ ثمانيه	من بعد سبعين عليها وافيه*
٧	وآجْعَلْ [لكلٍّ]* مَنْزِلٍ ثلث عَشْرَه	وعُدَّ يا صاحْ من نُجيمٍ** الزُّبْرَه

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* ب ، ظ : به الساعات .
** زيادة من ب ، ظ .
(١) * ت : لقسمة ، البديل من ب ، ظ .
(٢) * ب ، ظ : فليفتقد .
** ب ، ظ : طالعاً .
(٦) * ب ، ظ : سبعون عليها ثمانية .
(٧) * زيادة من ب ، ظ .
** ت : صاح بنجم ، البديل من ب ، ظ .

٨ فما آنتهى له من الحسابْ — هو طالعُ الفَجْرِ على الصَّوابِ
٩ والشَّمسُ في ثـالِثَةِ المَنـازِلْ — أعني التي الفَجْر* بها يا سائِلْ
١٠ ويستوي الشَّهْرُ برابع* مَنْـزِلَه — إنْ كان وافي**قِسْ على ذا وآعْمَله***
١١ واحْسِبِ الشَّمسَ معاً والبَدْرا — بأيِّ بُرْجٍ إن تريدَ الفَجْـرا
١٢ لكنَّ ذا الذي وصَفْتُهُ لـك* — كبيسـةٌ يَعْـرِفها أهـل الفَلَكْ
١٣ في كلِّ عامْ رُبْعٌ من الأيَّامِ — منْ هجـرَةِ الهـادي لـلأنـامِ
١٤ وفي الكبيسَهْ بين أصحابِ* النَّظر — سَهْلُ آخْتلافٍ نَقَلوا** الخَبَرْ
١٥ نَظَمْتُهُ إذْ عَمَّ وصفي في الورى — ما للجوادِ راكبٌ أنْ يَهْجُرا
١٦ وخيـرُ مـا لِلْجُمَّـةِ المُقسَّمَـه — بناتُ نَعْشٍ السَّبْعَةُ المُعَظَّمه
١٧ تـركتُهـا إنِّيَ لا أُصيبُهـا* — طولَ الزَّمانِ فآفْهَمَنْ عَيْبَها**

75 [معرفة بروج المنازل]

١٨ أمَّا المنازلُ التي وَصَفْتُ لَكْ — إثْني عَشَرْ بُرْجاً تُصادفْ في الفَلَكْ
١٩ لكلِّ بُرْجٍ من ذوي المَنازلْ — مَنْـزِلتانِ ثمَّ ثُلْثٌ كـامِـلْ
٢٠ فأوَّلُ الهنـعِ * الى السَّرْطانِ — وأوَّلُ العـوا** الى الميـزانِ
٢١ وهذهِ البُروجُ خُذْ منِّي الخَبَرْ — تَنْزِلْ بها الشَّمسُ وأيضاً* القَمَرْ
٢٢ فإنْ تُرِدْ تَعْرِفَها خُذْ* ما حَضَرْ — عِنْدَكَ مِنْ نيروزكَ الذي آشْتَهَرْ

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(٩) * ت : على التي بالفجر ، ب ، ظ : لدى الفجر .

(١٠) * ب ، ظ : الشهر مصحح الفجر .

** ب ، ظ : وامي .

*** ب ، ظ : واعلمه .

(١٢) * ب ، ظ : لكن الى هذا وصفت لك .

(١٤) * ت : كبيسة وهي عند اهل ، البديل من ب ، ظ .

** ظ : نقلوا الخبر ، ت : نقلو ذوي الخبر . ب : نقلوا ذا الخبر .

(١٧) * ب ، ظ : اصينها .

** ب ، ظ : عينها .

(٢٠) * ب ، ظ : الكبس . ت : الكبش

** الأصول : الغفر .

(٢١) * ب ، ظ : هي .

(٢٢) * ت : صف ، البديل من ب ، ظ .

٢٣ على مِنَ الأيَّام سِتِّينَ وعُدْ* | من بُرجِ الميزانِ أجْزا وخُذْ**
٢٤ لكلِّ بُرْجٍ شَهْرَ بالصَّوابِ | فالشَّمْسُ في الغايةِ في الحِسابِ
٢٥ فإنْ عَرَفْتَ الشَّمسَ فآحْسِبْ للقَمَرْ | وزده أيضاً خمسةً معْ ما حَضَرْ
٢٦ من شَهْرِكَ العربي ، ومثْلَهْ وآقْسِمِ | لكلِّ بُرجٍ خَمسةً [ذا]* فآعْلَمِ
٢٧ إنَّ العَدَدْ أوَّلُهُ مُقَوَّمْ | من بُرُجِ الشَّمسِ الذي تَقَدَّمْ
٢٨ فالبدرُ للبُرْجِ الأخير واصِلْ | إنْ شِئْتَ أن تَعْرِفَهُ في المَنازِلْ
٢٩ نصفُ ثلاثٍ فوقَ ماضي الشَّهْرِ | وآحْسِبْ إليه من نُجَيْمِ الفَجْرِ

76 [معرفة الساعات]

٣٠ وإنْ تُرِدْ أن تَعْرِفَ الساعاتِ | على غروبِ البَدْرِ والطَّلْعاتِ
٣١ من أوَّلِ الشَّهْرِ لِنِصْفِ* الشَّهْرِ | تَعْرِفْ على كَمْ ساعة أن تجري
٣٢ ونصفُهُ الآخرْ على كَمْ يَطْلُعْ | من* ساعةٍ تَضْرِبْهُ إنْ يَجْتَمِعْ
٣٣ في سِتةٍ وآقْسِمْهُ سَبْعَهْ سَبْعَهْ | مثالُهُ في الشَّهْرِ كان سَبْعَه
٣٤ تَضْرِبُها في ستَّة تَبِيْنَا | إثنينِ* جاءَتْ بعدَ أربعينا
٣٥ وآقْسِمْ الى السَّاعاتِ سَبْعَهْ حتَّى | يَصِرْنَ* من ساعاتِ عِنْدَكْ** سِتَّا
٣٦ فذاكَ نِصْفُ اللَّيلِ ما فيهِ مِرَا | لأنَّهُ جميعه آثْنا عَشَرَا
٣٧ كذا مِنَ النِّصْفِ لِراسِ الشَّهْرِ | احسبْ طلوعَهْ في [طلوع]* الدَّهْرِ
٣٨ وإنْ تُرِدْ تَعْمَلَ بالمَنازِلِ | في طالعٍ أو وَتَدٍ أو آفِلِ*
٣٩ تَقْسِمُها وتَضْرِبُ* مِثْلَ القَمَرْ | فإنْ تَرَ القَسْمَ عَنْ السَّبْعَهْ قَصَرْ**

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(٢٣) * ت : عدد ، البديل من ب ، ظ .
** ت : عدد ، البديل من ب ، ظ .
(٢٦) * زيادة من ب ، ظ .
(٣١) * ب ، ظ : ونصف .
(٣٢) * ب ، ظ : ما بين .
(٣٤) * ب ، ظ : ثيان .
(٣٥) * ت : يضرب ، التصويب من ب ، ظ .
** ت : عنك ، ب ، ظ : سات عندك .
(٣٧) * زيادة من ب ، ظ .
(٣٨) ب ، ظ : في طالع ان بدا وآفل .
(٣٩) * ت ، ب ، ظ : اقسمها واضربها.
** ب ، ،ظ : بان ترى الساعة عن القسم قصر .

٤٠ فـذاك أسْباعُ لِساعَـةْ تُجْزا | إنَّ لها في القَسْمِ سَبْعَهْ أجْزا
٤١ وٱعْلَمْ بـأنَّ هذه السَّاعـاتِ | عندَ أُلِي ٱلْعِلْمِ زمانٌ يأتي
٤٢ يصـادفـونَ السَّبْعـةَ السَّيارَهْ | عـطارداً والبـدرَ بـالأمـارَهْ
٤٣ ثمَّ زُحَلْ والمشتري قدْ جَرَّهْ | مرِّيخُهُ والشَّمْسُ ثمَّ الزُّهْـرَهْ
٤٤ هم سَبْعَةٌ لهنَّ سَبْعَهْ أحرفِ | والمُبْتدا من الأحـدْ فٱعْرِفِ
٤٥ دَيْهَلْ* سَرْخُ ، الَّليلُ ، والنَّهارُ | إليـهِ شَـرْحُ دَيْهَـل أشـاروا
٤٦ هُم كِلْمتـانِ سَبْعَـةُ حُـروفِ | تَعْكُسُ المـذكورَ يـا ظـريفي*
٤٧ أوَّلُهُمْ آخرْ حروفِ الكـوكبِ | عطاردٌ فالـدَّال* مَيِّزْ وٱحْسِبِ
٤٨ والمُشْتري للياء والـزُّهرهْ هـا | واللامُ للنَّحْسِ وشَمْسٌ سينُها*
٤٩ والقمـرُ الـرا وَجَـوَادُ* الفَلَكْ | سَمَّوْه بالمريخِ خا منْ غيرِ شَكْ**
٥٠ الى عـطاردٍ غسـقْ تكـرارْ | والسين يـاتي أوَّلَ الـنهـارْ
٥١ أعني الأحَدْ هو مُبْتَدَا التقويمِ | آخِـرُ حَـرْفِ أوَّلُ الصَّـريمِ

77 [معرفة النجم الزوجي]

٥٢ ومنْ أحَبَّ معرفـة* الزَّوجي | دخـولِـهِ الأخْنـانَ والخـروجِ
٥٣ فـدورةُ الزَّوجيِّ في الأخنـانِ | في كلِّ شهرٍ فٱفْهَمَنْ تَبْيَاني
٥٤ يعـودُ للخَنِّ بكـلِّ شَـهْـرِ | ثـلاثةَ أيَّامْ بطولِ الـدَّهْرِ
٥٥ فجملة الأحـادِ والخمسـاتِ | في الزَّوْجيِ* الهيرانُ قيلَ ياتي
٥٦ والأربعـاتُ والثَّـواني القَلْبُ | طلوعُـهُ يـا صـاحبي والغـربُ

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(٤٥) * ظ : ويهل .
** ب ، ظ : دهيل .
(٤٦) * ت : للمذكور بها الصرف البديل ب ، ظ .
(٤٧) * ب ، ،ظ : كذا .
(٤٨) * ب ، ظ : سيرها .
(٤٩) * ت : جلاد ، ب ، ظ : له اوجاد .
** ب ، ،ظ : خا لا شكك .
(٥٢) * ت : ومن آخر معروفات .
(٥٥) * ت : فالزوجي . البديل من ب ، ظ .

٥٧ أمَّا الثلاثاتُ معَ السَّبْعاتِ فهي الى الأقطاب يا ثقاتي
٥٨ والبـارُ للسِتَّاتِ والثَّمانِ والوَتَدُ الأتْساعُ* خُذْ بياني
٥٩ وآخرُ العشْراتْ عليه الأرضُ وقال في التاسعِ هذا* البعضُ
٦٠ فآحْذَرْه ثمَّ اِحْذَرِ* الأصحابا وآفْعَلْ لهم بالنصح كي تُثابا

78 [معرفة اشاير الطوفان]

٦١ والواجبُ الرُّبَّانُ أنْ يُطاعا في كلِّ ما يُريدُ يا شُجاعا
٦٢ خصوصَ إنْ وافَقَ للطوفانِ أشايرُ تُعْرَفُ في الزَّمانِ
٦٣ مثالُهُ إنْ كان شمسٌ أو قمرْ لهُ مَنادِلْ فالحَذَرْ كلَّ الحَذَرْ
٦٤ وإنْ تَكُنْ منادلُ ثلاثه مُقيمةً أيَّامُها ثلاثه
٦٥ بغير بابٍ في الصباحِ والمَسا والوبدُ والحياءُ* والغيمُ رَسا
٦٦ والبحرُ زَخْنٌ ورُئِيْ السَّرْطَانْ فديِّرِ الفُلْكَ ولا تتوانْ
٦٧ وآقْصُدْ بعزمٍ أقْربَ البنادرِ يكفيك ربِّي جملةَ المَحاذرِ
٦٨ وإنْ تَرَى المندلَ بَعْدَ الظُّهْرِ فأوَّلُ الرِّيح عِنْدَ أَهْلِ الخُبْرِ
٦٩ وإنْ رأيتَ الرَّعْدَ بانَ*والمَطَرْ يأتي بلا خِبٍّ** ضعيفاً مُحْتَقَرْ
٧٠ والبرقُ إنْ رأيتَهُ مُرْتفعا فالرِّيحُ تاتيكَ ولا تَمْتَنِعا
٧١ وإنْ تَرَ البرقَ بوجْهِ اليمِّ فحكمُهُ كَحُكْمِ حرٍّ* النجمِ
٧٢ ياتيكَ في أمكنةٍ ريحُهُما وأمكنه لَمْ تاتِ فآفْقَهْ وآفْهَما
٧٣ هذا الذي وافقَ في الحسابِ من كلِّ ما يُذْكَرُ يا أصحابي

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(٥٨) * ت : الاسباع ، التصويب من ب ، ظ .
(٥٩) * ب ، ظ : منهم .
(٦٠) * ظ : فاجتنبه واحفظ ، ب : فاحذره واحفظ .
(٦٥) * ب : والوتود الحياة .
(٦٩) * ب ، ظ : سار .
** ت : حصر ، التصويب من ب ، ظ .
(٧١) * ب ، ظ : آخر . ت : حرّ .

79 [الخاتمة وتاريخ الارجوزة وعدد ابياتها وابيات فصولها]

٧٤ فلو أُرِدْ تـطويـلَ كـلِّ فَنٍّ — لَمْ تَطِقِ النُّسَّاخُ تَنْسَخْ عنّي

٧٥ قصدي الأُصولُ* في علومِ البحر — لا قصديَ الهرجُ** وكثر الشعرِ

٧٦ قد راحَ عمري في المطالعاتِ — وكثرةِ التسآلِ في الجهـاتِ

٧٧ وكم رأيْتُ في قطوطِ* الشولِ — ونـظمـهِ والنثـر والفصـولِ

٧٨ وكم نَظَرْتُ في حسابِ العَرَبِ — وحسبةٍ للهند مُذْ كُنْتُ صبي

٧٩ لم أرَ شيئاً في آتِّفاقِ الأصْلِ — في القُمْر والزَّنْجِ صحيح النَّقْلِ

٨٠ وفي جنوبي جاوةٍ والصينِ — والفـالِ علماً صـادقَ اليقين

٨١ والعقلُ أصلاً قطُّ ما* طاعَ وَرَقْ — أنْ يَعْتَقِدْ في طِرْسِ قطَّ ورقْ**

٨٢ من أجلِ ذا إنّي آخْتصرتُ نظمي — حَكَّمْتُـهُ على حـقيـقِ علمِ

٨٣ أُودِعْـهُ في أُرجـوزةٍ غـراءِ — هيهاتِ أنْ يُهْدَى لها سوائي

٨٤ جاءَتْ كما جاءَ الشِّهابُ يُسْتَضا* — يا حاسدي مُتْ كَمَداً أو غيضا

٨٥ تمَّتْ بشهرِ الحجِّ في جُلفارِ* — أوطانِ أُسْدِ البَحْرِ في الأقْطارِ

٨٦ في يـوم عيدِ* أبـركِ الأيَّام — إذْ خُصَّ بالإحسانِ والصِّيامِ

٨٧ وكان في التاريخ* يا مـولايَ — سِتَّـهْ وسِتُّـونْ وثَمـانِ مـايـه

٨٨ سَمَّيْتُهـا بالحـاويـهْ يـا صـاحِ — تُضيءُ للجـاهـلِ كـالمصبـاحِ

٨٩ ولا ألامُ بعـد مـوتي فيهـا — إنْ يغلطِ الكاتبُ أو قاريهـا

٩٠ قرأتُها على أُهيـلِ الصَّرْفِ* — والنَّحْوِ والعربانِ** أهْل العُرْفِ

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(٧٥) * ب ، ظ : قصدي العلوم .

** ب ، ظ : المزح .

(٧٧) * قط جمع قطوط : كتاب .

(٨١) * ب ، ظ : قد ما طاع .

** ب ، ظ : في سطر قط ورق ، ت : خط وورق .

(٨٤) * ت : بيضا ، التصويب من ب ، ظ .

(٨٥) * ت : جرفال ، التصويب من ب ، ظ .

(٨٦) * ب ، ظ : يوم الغدير .

(٨٧) * ب ، ظ : في الهجرة .

(٩٠) * ت : اهل العرف ، التصويب من ب ، ظ . ب ، ظ : تلوتها على أهيل العرف .

** ت : العرفان ، البديل من ب ، ظ .

٩١ وما حَوَتْ رَهْمانَجاتٌ يا فتى | إلاَّ وَفَتْها صَفْوَةٌ* ونَعْتا

٩٢ بصائرٌ لي* في أُصولِ التَّعْلِمَه | بنبذةٍ يَرْوونَ** لي مُسْتَحْكَمَه

٩٣ إذا رآها العارفُ* الخبيرْ | ومَيَّزَ الأوَّلَ والأخيرْ

٩٤ وعاينَ الفصولَ والحِسْباتِ* | دعا لِمَنْ ينظُمُ ذي الأبياتِ**

٩٥ جميعها* ألْفاً وثمانينَ ، أتَتْ | تزيدُ بيتين لذاك قد وَفَتْ

٩٦ فصولُها يا صاحبي أحَدْ عَشَرَا | إحْسِبْ تَجدهُنَّ وتَسْمَعْ وتَرى

٩٧ ففصْلُها الأوَّلُ خمسونَ عَدَدْ | وفوقَها خمسةُ أبْياتٍ مَدَدْ*

٩٨ وفصلُها الثاني ستِّينَ أتى | ثالثُ فَصْلٍ أربعينَ يا فتى

٩٩ مائةٌ وسبعونَ* لرابعِ فَصْلٍ | وفصلُها الخامسُ إليه تُمْلي

١٠٠ مائةَ بَيْتٍ وثلاثينَ مَعَه | ثَلْثةُ والسادسْ مِئَهْ وسَبْعَه*

١٠١ سابعُها قَدِ آسْتَطالَ وآحْتَملْ | مائهْ وخَمْسَهْ في ثمانينَ كَمُلْ

١٠٢ وثامنُ الفصولِ سَبْعونْ وافِيَه | تاسعُها سبعون بيتاً صافِيَه*

١٠٣ [له ثمانِيَهْ وأمَّا العاشرُ | سبعونَ بيتاً عدُّها* المُباشِرُ]**

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(٩١) * ت : وفيها صفه ، ب ، ظ : وفيها صفوة .

(٩٢) * ب ، ظ : نظماً لرمز .

** ب ، ظ : بمدة يرونه .

(٩٣) * ب ، ظ : العالم .

(٩٤) * ب ، ظ : الحساب ،

** ب ، ظ : دعا لناظم الأبيات ، وفي الظاهرية مصححة بخط حديث مختلف : دعا الى الناظم بالثواب .

(٩٥) * ب ، ظ : جملتها .

(٩٧) * ب ، ظ : عدد .

(٩٩) * ب ، ظ : تسعون . انظر حاشية البيت ١٠٢ من هذا الفصل .

(١٠٠) * ب ، ظ : وثلاث أبيات والسادس تسعة : ت ثلاثة والسادس مائة وتسعة . انظر البيت ١٠٢ من هذا الفصل .

(١٠٢) * وافية بمعنى زائدة . يقال درهم وافي ، اي زائد . فيكون الفصل الثامن ٦٩ بيتاً . وبذلك يصبح عدد أبيات الفصول صحيحاً ومساوياً لما جاء في البيت ٨٧ من هذا الفصل بعد تصحيح التصحيفات الواردة في أبيات سابقة .

(١٠٣) * ب : له سبعون بيتاً اتاها .

** زيادة من ب ، ظ .

١٠٤ وفصلها الآخِرْ هو الحادي عَشَرْ	مائةْ وعَشْرَهْ ثمَّ خَمْسَهْ في القَدَرْ
١٠٥ ما عيبُها إلاَّ لفقدِ العارفِ	وعالمٍ لِلْغَلَطَاتِ* كاشفِ
١٠٦ فإنْ تَجِدْ فيها خلافاً أو خَلَلْ	حازَ الكمالَ خالقي عزَّ وجَلْ

80 [مؤلف الحاوية]

١٠٧ أَلَّفْتُها بعد ثباتٍ حَسَنِ	بفضْلِ خالقي* ومَنْ علَّمني
١٠٨ أنا الفقيرُ* والضعيفُ الراجي	غفرانَ ربِّي وإليهِ لاجي
١٠٩ أحمدُ بنُ ماجدِ الشهابِ*	العربي المَعْقلي الشُّهَابِ**
١١٠ ناشَدْتُكَ الله* أيا معواني	إذا تلوْتَ النظْمَ والمعاني
١١١ إقْرأ لنا الحمدَ مع الإخلاصِ	ينفعُنا في يوم بلا مَنَاصِ*
١١٢ صلَّى الالهُ كلَّما هبَّ الصَّبا	على النبيِّ سيِّدٍ للعرْبا*
١١٣ وآلهِ الكرام أهْلِ النسَبِ	وصَحْبِهِ والتابعينَ النجُبِ*
١١٤ وما سرى* معلِّمٌ بفُلْكِ	وما صفا مُلْكٌ لأهْلِ المُلْكِ
١١٥ قد كَمُلَتْ أُرجوزتي من فكري	أوَّلُها حمدي وآخرُها شكري

تمت الحاوية الفاخرة في علوم البحر الزاخرة . وصلَّى الله على سيدنا محمد وآله وصحبه وسلَّم . تمامها عشية الخميس ، وأربع ليال خلون من شهر الحج سنة احدى وتسعين سنة وألف سنة من الهجرة . هذا الكتاب للسيد . . . [مطموس عمداً] . كتبه خادمه ملاَّ محمد بن راشد الغافري .

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(١٠٥) * ب ، ظ : للمعضلات .
(١٠٧) * ب ، ظ : اباي .
(١٠٨) * ت : السمسكين ، البديل من ب ، ظ .
(١٠٩) * ب ، ظ : المعلم .
** ب ، ظ : المجرم .
(١١٠) * ب ، ظ : اسال الرحمن .
(١١١) * ب ، ظ : في العرض بالخلاص .
(١١٢) * ب ، ظ : النبي وآله واهل العبا .
(١١٣) ب ، ظ : وصحبه الكرام والأنصار التابعي رضي النبي المختار .
(١١٤) * ب ، ظ : وما استوى .

فهرس الأماكن

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(يحيل الرقم الاول الى الفصل والثاني الى رقم بيت الشعر فيه)

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(يحيل الرقم الاول الى الفصل والرقم الثاني الى بيت الشعر فيه)

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(١) مثنى زبان ، والأصل والصحيح الزبانيان .

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(١) صيغة غريبة خاصة بابن ماجد ونادرة عنده .

النَّعائم (منزل) ٧:٢	$\gamma\delta\epsilon\eta\sigma\varphi\tau\zeta$ Sagittarii, les Autruches
النَّعْش ١٥:٢ ، ٣٧:٢ ، ٣٩:٢ ، ٢٠:٥ ، ٤٠:٥ ، ٧٤:٥ ، ٩٣:٥ ، ١٠٦:٥ ، ١١٥:٥ ، ١٢١:٥ ، ١٢٥:٥ ، ١٣٠:٥ ، ١٣٣:٥ ، ٢٦:٦ ، ٤٠:٦ ، ٤٢:٦ ، ٨٤:٦ ، ٣١:٧ ، ٦١:٧ ، ٦٥:٧ ، ١٤٩:٧ ، ١٥٠:٧ ، ١٥١:٧ ، ١٥٤:٧ ، ١٦١:٧ ، ٥١:٩ ، ٥٥:٩ ، ٥٦:٩ ، ٥٨:٩ ، ٦١:٩ ، ٧١:٩ ، ٧٣:٩ ، ٧:١٠	$\alpha\beta\gamma\delta\epsilon\zeta\eta$ Ursae Majoris
النُّعُوش ٨٩:٥ ، ٩١:٥ ، ١٠١:٥ ، ١٣١:٥ ، ١٣٦:٥ ، ١٣٧:٥ ، ٣١:٧ ، ١٣١:٧ ، ٦٥:٩	$\alpha\beta\gamma\delta\epsilon\zeta\eta$ Ursae Majoris
المقع ٢٧:٤	
المَقْعَة ٣:٢ ، ٩٠:٤	$\lambda\varphi^{1-2}$ Orionis
المَنْع ١٤٥:٤	$\gamma\xi$ Geminorum
المَنْعَة ٣:٢	$\gamma\xi$ Geminorum
الطَّيَرَان ٢٧:٢ ، ٣١:٢ ، ٤٣:٢ ، ٢٢:٤ ، ١٥٦:٧ ، ٣٤:١٠ ، ٥٥:١١	α Aquilae
الوَاقِع ٤١:٢ ، ٧:٤ ، ١٠٥:٤ ، ١٠٩:٤ ، ١٣:٦ ، ٢٨:٦ ، ٩٢:٦ ، ٥٩:٧ ، ٦٩:٧ ، ١٥:٨ ، ٢١:١٠	α Lyrae, Véga

فهرس حاوية الاختصار

الفصل الأول

الحمد والثناء على الاستاذين وذكر اشارات يحتاج اليها الربابين ، مما لا يجهل فضله ، كالطين والحشيش والبلد والمارزة وما شابه ذلك .

الفصل الثاني

في المنازل والاخنان والجري عليهم ومقابلاتهم وعدد اصابعهم في السماء وهي اصابع غير الترفّات ومعرفة الترفّا وما يتعلق بذلك والله اعلم .

الفصل الثالث

في قواعد الباشيات ومعرفة النيروز العربي والسلطاني والسنين العربية والرومية والقبطية والفارسية واستخراجهم بما وافق الحساب وطالع الفجر وغاربه على حساب النيروز .

الفصـــل الـرابــــع

في معرفة الباشيات ومواسمها وشهورها وثبوت قياسها وزواله على حساب النيروز وذكر ما يتعلق بصعود الجاه ونزوله وصعود الفراقد ونزولها وما يتعلق بذلك .

الفصل الخامس

في معرفة دير بر العرب والحجاز والسيام والخليج البربري والسومال والريم والزنج وجزائر القمر وآخر بر السودان والكانم فيما صح به الحساب والتاريخ .

الفصل السادس

في معرفة دير بر العجم والهند والشوليان والنات والبنج والسيام الى تحت الريح كبليطون والمهراج والصين والغور ، مما صحت عنه الاخبار .

الفصــل الســابع

في معرفة دير الجزر ومطالقها والمهراج وشمطرة والفال والقمر واليمن وسواحل الحبشة والسومال والاطواح ومكران وما بينهم وما يتعلق بذلك مما صحت عنه الاخبار والتواريخ . والله اعلم بالصواب .

الفصــل الثـامـن

في معرفة المسافات من بر العرب الى بر الهند من جاه خمس الى جاه اثنتي عشرة وذكر المسافات على اربعة رؤوس ، وذكر أزوامهم وما يتعلق بذلك وهم قيد يعتلم بهم مسافات جميع البحر . والله أعلم بالصواب .

الفصل التاسع

في معرفة قياس الجاه والفرقد والنعش عند استقلال الصرفة ، وهو قياس الاصل على جميع الرؤوس المشهورة في سواحل البحر المحيط الواغل في الشمال ، وهو بحر الهند والسيام وبر العرب والسواحل . والله اعلم بالصواب .

الفصل العاشر

في معرفة تغني عن الاستواءات وقطع الازوام وذكر ما يتعلق بالربان ، كتفصيل القلع ومعرفة جري الماء في الباحة والبحر المحيط الواغل بين بر السودان والهند والصين . والله اعلم بالصواب .

الفصل الحادي عشر

في تقويم يعرف به الساعات ودخولها والسبعة السيارة وازوام الجمة والنجوم والشمس والقمر ومعرفة النجم الزوجي ودخوله الاخنان ودليل الطوفان وتاريخ الأرجوزة بما يوافق ذلك من الحساب . والله اعلم بالصواب .



105. This poem needs an expert scientist who discovers the errors, this is the only weak side in it.
106. If you find any divergence or fault, my Creator alone is Perfect, May He be magnified and honored.

80. [The author of the Compendium]

107. I composed this poem with intense assiduity, thanks to God and to my teacher,
108. I, the poor, the weak, who aspire to the divine indulgence and seek refuge in God,
109. 'Ahmad Ibn Māǧid al-šihāb, al Maʿqilī, the well known.
110. I beg you, in the name of God, my assistant, in case you read my poem and understand its meaning,
111. to thank God sincerely for me, this will help me on the day of my death.
112. Every time the east wind blows, may God bless the Prophet, Master of the true Arabs,
113. his noble and generous family and his companions and his intelligent followers.
114. May He do it as long as a pilot travels at night on his ship, and as long as the supreme power lasts in the hands of the sovereign.
115. This is the end of my poem in Raǧaz. I began it by thanking God. So I finish it.

This is the end of the excellent compendium which deals with the rich sciences of the sea. May God blessing and peace be with our lord Mohammed, his family and his companions. This copy was finished on the eve of thursday, on the 4th of the month Ḏu l-Ḥiǧǧa of the year 1091 H. This book belong to ... (erased)...It was written by the servitor of God Mulla Mohammed Ibn Rāšid al-Ġafarī.

85. I have finsished it in the month of Ḏu-l-Ḥiğğa , at Julfar, the residencė of the Lions of the sea among other countries,
86. on the day of the most blessful holiday, since it is dev- oted to charity and fast.
87. The date was, my master, 866 H. (sixty six and eight hundreds).
88. I named it « the Compendium », my friend; it enlightens the ignorant like a lamp.
89. I would not be responsible for the mistakes of any copyist or any reader, after my death.
90. I read it to the grammarians and to the Arabian traditionalists.
91. The Rutters do not contain any subjects not equalized in lucidity and explanation
92. by some condensed little citations of my own clear ideas about the principles of mastership in navigation.
93. If the expert scientist see it, consider its first and last parts,
94. and observe its chapters and computations, he shall certainly implore the mercy of God for the composer of these verses.
95. The total number of its verses is one thousand eighty two in all.
96. The poem is divided into twelve chapters, my friend, count them, then listen and see
97. The first chapter counts fifty five verses.
98. The second chapter has sixty; the third forty, young man.
99. The fourth chapter has 170. Transcribe for the fifth chapter
100. one hundred and thirty three verses; for the sixth chapter one hundred and seven.
101. The seventh chapter is long and contains 185 verses exactly.
102. The eighth chapter has about seventy; the ninth, seventy precisely
103. with eight others. The tenth, counted directly, gives seventy.
104. The last chapter, the eleventh, has 115.

EPILOGUE

79. the poem's date and number of verses, number of verses of each chapter]

74. If I intended to prolong every art, the copyists wouldn't be able to reproduce my works.
75. But I aspired to expose the basic elements of the sciences of the sea. I never aimed to joke and to compose too much poetry.
76. I spent my life reading and asking a lot of questions everywhere.
77. How often I refered to the Chaula's manuscripts, written in poetry and prose, and to their chapters.
78. How many times I had recourse to the Arab calculation and to the Indian Computation since I was young!
79. I didn't see in the knowledge of the originals anything correctly copied about Qumr and Zanǧ,
80. nor a learning proved to be really true, about China and Southern java.
81. In fact, the mind never accepted to be enslaved and never admitted to entrust the pages of a book and a parchment.
82. That is why I abridged my poem and developped freely in it the true science,
83. which I included in my Poem in Raǧaz. Nobody but me could compose such a poesy.
84. That poesy seems like a shining fire flamme. May you die, my rival, in your anguish or in your fury.

71. If you see the lightning on the surface of the sea, the weather will resemble that of the setting of the Pleiades:

72. in some places, the wind blows; in others it does not. Comprehend me and understand.

73. This agrees with the astronomical calculations, among all what has been said, my friends.

77. [On the binary star]

52. Whoever likes to know the entrance of the binary star in the rhumbs and its departure,
53. should know that the binary star circles the rhumbs every month. Comprehend what I explain.
54. It comes back to the rhumb in every month three days for ever.
55. The ones and fives in the binary are for theFlyingEagle.
56. The fours and twos for the Heart when rising or setting, my friend.
57. The threes and sevens for the poles, my trusty.
58. The six and eights for Capella. The nines for the culminating star, take my explanation.
59. The last tens for the Earth; some said it is in the nines.
60. Be careful and mind the friends, and advise them, so that you get your reward in heaven.

78. [Signs of the heavy rains]

61. Everybody should obey the orders of the pilot, my courageous,
62. especially when appear the heavy rains signs, noticed in due time.
63. For example, if the dirts obscure the sun or the moon shine, be very careful!
64. If the dirts last three days,
65. without any clearing up in the morning and the evening; if the heat, the rain and the clouds stand firm;
66. if the sea is agitated, and if you see the crab; then turn back your ship without delay,
67. and go steadily to the nearest harbor. May God protect you from all dangers!
68. If you see the dirt in the afternoon, that means the beginning of the wind blowing according to the experienced sailors.
69. If you hear the thunder, and see the rain falling not in big drops, but in thin and tenuous shower,
70. if you see the lightning very high, then the wind will blow without fail.

31. from the beginning of the month till the middle of it, know on how many hours you should travel,
32. and for the other half of the month, at what hour it rises. Multiply the result
33. by six and divide by seven. For example, it is the seventh of the month.
34. Multiply by six, you obtain forty two.
35. To have the hours, divide by seven and you obtain six hours.
36. This is midnight, without discussion, because the night is twelve hours.
37. Do the same from the middle of the month till its end, and calculate the rising of the moon in all times.
38. If you like to compute on the basis of the rising, culminating or setting mansions,
39. multiply and divide as in the case of the moon. If the division does not give an exact number of sevens,
40. the remainder constitutes a seventh of an hour, since the hour is divided in seven parts.
41. Comprehend that these hours constitute, according to scientists, the coming time.
42. They correspond to the seven planets: Mercury, the Moon,
43. Saturn, Jupeter, Mars, the Sun and Venus.
44. They are seven and have seven letters and the beginning is on sunday. Know that.
45. Deyhul Sarḫ, night, and day. This is the explanation of Dayhul.
46. They are two words of seven letters, which represent what has been said, my good man.
47. The first letter is the last letter of the name of the planet. د for Mercury. Discern and calculate.
48. ي for Jupiter; ه for Venus; ل for Saturn; س for the sun
49. ر for the moon; خ for Mars, the horse of the sphere without any doubt
50. To mercury the beginning of the night, repetedly; and the س comes in the first day,
51. I mean sunday the beginning of the calendar. The last letter for the beginning of the night.

13. In every year there is a quarter of a day, since the Emigration of the Guide of Humanity.
14. In the bissextile (leap) year, the theorists consider the difference a trifling one; this is what they said.
15. I composed it since my description was diffused among all people. And a rider doesn't leave his horse.
16. The best division of the open sea is that of the mervelous seven stars of the Little Bear.
17. I left them because I could not observe them all the time. Comprehend their default.

75. [On the mansions' signs of the Zodiac]

18. The mansions I described to you meet the twelve signs of the Zodiac in the celestial sphere.
19. Every sign has two mansions and a third in all.
20. The beginning of the Twin's Feet mansion is in the Crab Sign; the beginning of the Faint Stars mansion is in the Balance Sign.
21. Be informed that the sun and the Moon pass through the signs of the zodiac.
22. If you like to know the signs, add to the actual date of the famous Nuruz
23. sixty days. And count the divisions from the Balance Sign. Take
24. exactly one month for each sign. The sun is situated in the last sign of your calculation.
25. When you know the position of the Sun, compute the position of the moon. Add five to the date
26. of the arabic month. And do the same and divide by five for each sign of the zodiac. Comprehend that.
27. The counting begins from the above mentionned sign of the sun.
28. The Moon reaches the last sign. If you like to know the position of the moon in the mansion,
29. add half three to the past date of the month and count from the mansion rising at dawn.

76. [On the Hours]

30. If you like to know the hours on the basis of the rising and setting of the moon,

Chapter XI

A calendar that gives the hours and their beginning, the seven planets, the zams in the open sea, the stars, the sun, the moon, the binary star and its passage by the rhumbs, the signs of the heavy rains, the date of the poem in accordance with the astronomic calculations. God know the truth.

74. [On the rising and setting mansions]

1. Whoever would like to know the Zam and the correct division of the open sea,
2. should watch the rising mansions and the setting ones.
3. Each mansion and one sixth of a mansion equal one hour for the moon at night, and for the sun as well in the day.
4. Every three mansions and a half are equal to one zam.
5. First, begin by the Nuruz, so you might know the signs of the Zodiac exactly.
6. Take the time gone by, and add seventy eight to it.
7. Give thirteen days for each mansion and count my friend, from the Lion's Neck mansion.
8. This calculation will give exactly the rising mansion at dawn.
9. The sun is situated in the third mansion, I mean the mansion rising at dawn, oh inquirer.
10. The month ends in the forth mansion, if it is complete. Do like that and apply it.
11. In case you want the dawn, calculate in which sign of the Zodiac the sun and the moon are situated.
12. But the year I explained to you is a leap one, known by the astronomers.

73. [On the knowledge of the currents of the water in the high sea]

65. Be moderate when you ask for your preparatives. Relieve your crew when tacking.
66. If you desire to know the currents of the water in the high sea,
67. these currents drift you to the south pole from 100 to 300 of the Nuruz,
68. and from 300 to Tirima; then it stops in the north, for days
69. whose number is ten in that period and in the 300. Know it.
70. Those are the descriptions of the sea. At the littoral, there are currents (ḥāyāt) or tideways of the waters.

47. and with three stitches in the aft depth; then seam duly the rope of the sail's foredepth;
48. attach the ring with four stitches, putting three of them in the hem. Sew perfectly.
49. They call them the dawāsiğ ropes and they extend them by a wood.
50. Fold the edge of the cloth over the rope, and put a boltrope at its extremity.
51. Sew the edge to the boltrope, and be careful after the following computation I am giving you.
52. The sail width is equal to the length of the yard; its depth to the height of the mast supporting the yard.
53. The foredepth of the sail is a little less than a quarter of its abaft depth. Take my descriptions, and listen to my computation.
54. Sling the foredepth and the sail rope half of ten [units] apart, understand, o brother.
55. The foot hem of the sail should be clearly the third of its head doubled rim.
56. The aftdepth hem of the sail should equal half its foredepth doubled rim, and some expert pilots said two thirds.
57. The foredepth depends upon the measures taken and some pilots increase it, my friends,
58. by two thirds of a finger for every « ell ». Stitch the middles. View closely
59. the torn and unsewed parts, the aftdepth of the sail, the tacking ring; and sew them hastily.
60. This is the tailoring of the sail among the Ğawšak and the Arabs, my friend.
61. But the chinese, the francs and the indians have their own different purpose.
62. Some of them increase the aftdepth. Some others avoid giving any information.
63. The sail appear square when looked at; and it intends to catch the winds.
64. But the safe conduct depends upon the master of a drifting ship because of bad winds.

30. Measure it in a normal way, its maximum elevation is famous among all pilots.
31. its « shallowing » and « deepening », o friend, have an example, when you are sailing
32. from India to Arabia, and the measure of these stars increases. Then calculate
33. a quarter of a finger and know that you sailed ten zams exactly.
34. If your course is by aṭ-Ṭā'r, discern my computation and understand my meanings.
35. The elevation of the « Asses » is five fingers at Polaris eleven fingers and they say the elevation of the « Square » is four fingers.
36. Measure Sahm al-Qaws and Canopus four fingers at al-Ḥadd, my friend.
37. Diminish the fundamental measure as much as they increase.

72. [Tailoring the ship's sail]

38. If you desire to tailor a sail, draw the ship to an even ground.
39. Implant four stakes separated according to the traditional measurement.
40. Spread the bolt-ropes and the cloths. Order the seamster to stitch them
41. When the seaming is finished after making the adequate measurement, put two yards by the width of the sail at the edge,
42. along the bolt-ropes at the head and foot of the sail, so that these bolt-ropes might be fully stretched by pulling out.
43. Once the yards in place and before anything else is done,
44. sting the threads just at the rim, in equal intervals all along the line; then tie the knots strongly (round the yard).
45. Sew the boltropes of the head and foot of the sail, o brother, fasten the hem, without discussion,
46. with two stitches in the foredepth out of five stitches without lie,

10. by the tablet of twelve fingers, when they are in the angle of the bar,
11. measure them, and measure at the stern of the ship another star. Inscribe and keep sailing. Write down
12. the decrease of the altitude of the stern star. As to the two stars measure, it changes not and the stars leave not their place.
13. Whenever the little star of the stern descends one finger, verify it o traveller,
14. because your ship sailed eight zams exactly, not less.
15. The two stars whose elevation you fixed in the angle, stay the same, understand my recommendation.
16. It has six successive rhumbs till that of aṭ-Ṭā'ir. Apply it.
17. This suffices you throughout the sea, if you are courageous and have deep thinking.
18. The proof for that is that Polaris, listen to me, decreases 8 zams for each finger.
19. But opposite the star Polaris, there is another star above the head, o brother.
20. These stars are above the level of the water. Verify, you shall judge in the right way.
21. Sirius and Vega in Arabia are correct from Māmī to al-Ḥadd.
22. All other culminating stars? are defective because of the pilots interpretation.
23. Be known that Sirius, Pollux and Castor, Vega circle together in their motion.
24. When Sirius sets at al-Ḥadd, the measure of Vega, Castor and Pollux, in my opinion,
25. is nine fingers. Castor and Pollux are at its western side, and so is Vega, intelligent pilot.
26. Whenever Polaris decreases one finger, diminish Vega a quarter of a finger.
27. But Castor and Pollux decrease in the two coasts half a finger by sight.
28. At Zaǧad, if you measure Sirius at the rising of the famous Vega,
29. you obtain 5 fingers and Castor and Pollux 12 fingers but decrease half a finger in each tiriffa clearly.

Chapter X

On a Knowledge that exempts from Knowing the horizontalities and from calculating the sailing distances in zams; citing requirements of the pilot, such as the tailoring of the sail, the navigation in the high seas and the Ocean extending between the Sudan coast, India and China. God know the truth.

70. [Defects of the Mastership]

1. The pilots tested the horizontalities, but the scribes altered them,
2. and impaired imperfections to the mastership since the time of Alexander till now.
3. The drunk pilot writes on the science of the sea without proof and verification.
4. My life allow me not to experiment all these arts.
5. I put not in my poem any science without knowing experiment.
6. But I mention things which are obviously known and used by all pilots

71. [Knowledge which dispenses from using horizontalities and sailing by the zams]

7. Measure Polaris and the Guards. When they set the Great Bear is at your disposal.
8. O mariner, compute the sailing distances and the courses, and travel your zams accordingly.
9. In case you see two stars culminating, leave not the computation of the measurement,

70. 3 fingers in them all; and so it is at Tīrī Raǧa which is the most famous islands for rescue.
71. At Hadūda it is 2 fingers; so it is at Timāruwa, may God protect you from the separation.
72. At Kūs harbor, the deep of Kūrī, aš-Šaǧara famous harbor,
73. the Great Bear was measured one finger by the scientists. They see nothing else, understand.
74. If you measure at the end of ad-Dāmūtī by the Great Bear before it is late,
75. you obtain half a finger for the al-'Anāq (Mizar) and al-Ǧūn (Alioth). Canopus is not setting and fixed,
76. because this is in the end of az-Zanǧ Coast and the strait leading to the West and to al-'Ifranǧ country.
77. At its southern end, there is nothing but reefs and obscurity known by God
78. Some pilots say those are islands and the end of the littoral is five fingers by the Great Bear, o accustomed to the sea.
79. The reports of the pilots are different. May God forgive me my faults.

69. [Measurement of the Great Bear from altitude 12 fingers to altitude one finger]

50. At Sarbaya, Fālī island, Java, Manfiya in the sand,
51. the Great Bear is 12 fingers, it is proved. Understand my poesy which is like jewels.
52. At al-Ḥarrabā', Ḫūriya, al-Milḥ's head also, o inquirer,
53. at Fāyden Šāšī Timor, some pilots say at Kilwa, o erudite,
54. at 'Anǧazīǧa, Hanzuwānī, Mulālī and Dumūnī islands,
55. the Great Bear is in them all 11 fingers. Here at the end of al-Fāl, in the opinion of all pilots,
56. at Timor islands, and, in the opinion of al-Qumr pilots, at Bani Ismail harbor, the Great Bear is 10 fingers.
57. So it is at Lūlūǧān, al-'Aḫwār, and at Sufāla as was reported, o master of the sea.
58. The Great Bear is nine fingers at the residence of as-Sultan whose name is Bimāruwa from a long time.
59. At its west side, you see 'Anāmil, and Darwīš's harbor on the littoral.
60. They said at Manzalāǧī and Sa'da, the Great Bear increases a little bit more than they explained.
61. The Great Bear is 8 fingers, in the opinion of all pilots, at al-ʿAnbar island;
62. at Šaǧāǧī harbor, Musanbīǧī, an-Nuwab harbor, listen to my discourse.
63. If you measure al-Ǧūn (Alioth) and as-Suha (Alcor), when the Tail of the Lion is culminating, you obtain seven fingers,
64. at Nasīm, Malawīn and the end of al-'Aḫwār exactly.
65. The Great Bear is six at Sufāla, the country of Gold, this is my knowledge.
66. The Great Bear is also six at Šiʿbān's harbor and at Mankār, o faithful friend.
67. The Great Bear is five fingers at Hadūda harbor and Kūrī harbor.
68. It is four fingers at Kūs, Qāsim and Kandalī harbors, in the opinion of the erudite.
69. It is at the harbors of Hant, Tallīnī, and 'Abya in al-Qumr, o helper,

31. It is reported that at Aruwa, Malacca and at the end of Barnī, in the opinion of the clever pilot,
32. it is reported that at 'Adwa, Maqāṣir, I mean at its northern end, pretend not,
33. and at Barhala, Šanfā, Sinğāfūr, Fiššalam, understand me, o expert pilot,
34. at Salt Zanğī, Manqābuwa and Barāwa, the Guards are truly five fingers.
35. Measure the Guards when they are in horizontality four fingers at Malawān, it is a sure measurement.
36. At Falī Banğ and Andarfūra, the Guards are four fingers, it is known among all pilots.
37. At that time, you see, o pilot, that, the mansion of the Lion's Tail might be culminating
38. in the fundamental sphere as every star when the north pole is at the level of the sea,
39. (added) Don't you see that aṭ-Ṭā'ir stays in the south, then culminates
40. in the middle of the heavens. Be informed, and its signs are al-Maᶜqil and aḏ-Ḏalīm.
41. In the region around az-Zanğ, it is septentrional. My description is enough to you, take my word.
42. Then toward the north, o intelligent pilot, the best star is Polaris.
43. But at Kitāwa, Sunda Bārī, Andalūs, Mūsa Bārī,
44. and Mulūkū, measure the Guards three fingers, it was tested by the pilot used to go to these places.
45. It was reported that Mulūkū was not in that place, understand my poesy and keep it unaltered.
46. The Guards at Monbasa and Zarrin which is far 60 zams in the high sea, are two fingers, be informed.
47. At southern Java it was reported, at Lāsam, southern Maqāsar
48. Ğaršīk, Java, al-Ḫadrā' whose name is mentioned, after Qārī,
49. at Karam Diwa, Java Harbor, the Guards are one finger, learn the saying.

12. But at 'Azādiwa, Polaris is six fingers. At Marṭabān, Mutbalī, Šiḥr,
13. and also at the well known ras al-ẖullab, Polaris is six fingers in excess.
14. If the Lion's Tail is in horizontality, Polaris is five fingers, understand my description.
15. in the following heads, my lion: Ḏubāb, Dār Zayna, and Māmī,
16. Mangalore, Ra's al-Fāl, I mean the northern end of these islands,
17. also the coast of an-Nāt, Ṣadrāfattan, Andamand and Fālī, be meticulous,
18. Šahr-i-Naw, and Barnī Islands-I mean its end from the north,
19. if you come to them from the north, my love, the Nebulae of the South Pole will appear.
20. At Tanāṣarī, Polaris is four fingers. Tirmulā Wāṣil, Andarawān,
21. Qābuqāt, Ǧardafūn resemble exactly these heads.
22. At Al-Marr, Šankal, Nāğafattan, Nākabārī,
23. also Murāšī, the end of Seylān, then Qarāyā where is the pilot meeting,
24. and Kušī, Polaris is three fingers exactly. So you might be saved
25. Also At Takwa, Manğal Fūla and Fānuwa in the opinion of all pilots,
26. Polaris is two fingers, O protector; at Šitalākam, Qāyil, al-Hirr, Kūlam Malī,
27. Ǧāmis Fula and Qadaḥ, when they appear, at as-Sīf and Seylān, Polaris is one finger only.

68. [The measurements of the Guards from altitude seven fingers to altitude one finger]

28. But for Talanğ, Danğ Danğ, Šumuṭra, Mahkufanğ,
29. the shoal of Muqbil off the country of az-Zanğ, measure the Guards seven fingers and rely on it.
30. The Guards are six fingers at al-Murūt, and at Fanṣūr also, take my advise.

Chapter IX

The Knowledge of the Measurement of Polaris, the Guards and the Great Bear, when β Leonis (Denebola) is culminating. It is called the fundamental measurement on all famous heads of the coasts of the Ocean extending to the north and known as the sea of India Siam, Arabia and as-Sawāḥil. God know the truth.

67. [The measurements of Polaris from altitude 11 fingers to altitude 1 finger]

1. The measurement of Polaris is taken, o polite, I mean its tested fundamental measurement,
2. when the Lion's Tail (Denebola) culminates above the head and the Guards are in horizontality.
3. At Ǧudda, al-Ḥadd, the pilots say at Zağad also, and at both the two Benğālas,
4. Polaris is 11 fingers, without lie, test it, o pilots of experiences.
5. At Rakanğ and the famous Ǧīğahr, at Diu, al-Maḥram and Maṣīra,
6. Polaris height is ten fingers. At Mūm and Kanārkam, Polaris is 9 fingers. So it is at Tāna, Madraka
7. and Marābiṭ al-Ḫayl. But in Samar islands, at Ḫamḍa's head,
8. at Ṣawqira and Būriya, my friend, listen to my discourse, you get the suitable measure,
9. Polaris is 8 fingers clearly. So Polaris is at Waysa and Satwāhī.
10. But at Nağirāšī, Ǧodāwarī and Dandabāšī, Polaris is seven fingers. At Sāğir,
11. the islands and al-Ḥarda, Polaris is seven fingers measured and some pilots say seven in excess.

64. [Sailing Distances at Heads, Polaris one finger]

51. But from as Sīf to Kandīkal, I mean at Polaris one finger, my hope,
52. the sailing distance is 95 zams, take it and leave any other distance.
53. From kandīkal to Sarandīb, add, o learned, to 20 zams
54. 12 zams, it was said by the pilot who sailed it; other pilots gave a different number and put it in writing,
55. because its surface is big, so they have many calculations for it.
56. From the land of Qadaḥ to al-Fāl as-Siam, follow my discourse,
57. I mean Ǧāmis Fula, the distance is 20 Zams, even more, my courageous pilot.
58. From Ǧāmis fula to Ṭūṭāğām 72 zams.
59. From the land of Qadaḥ to as-Sīf aṯ-Ṭawīl, understand my explanation,
60. there are 113 zams in the clear famous computation

65. [Sailing Distances at heads, Guards one finger]

61. From the al-ḫadrā' island to Karam dīwa, listen to my information,
62. there are no less than 150 zams, even more according to another calculation.
63. From Karam dīwa to Sunda in Java, they counted 130 zams
64. Therefore, between the two islands of Java and al-Ḫadrā', we determine
65. 300 zams less twenty zams in this case, in the opinion of the good pilot.

66. [Computation of all sailing distances of the sea]

66. I related the sailing distances from Polaris eleven fingers to Guards one finger.
67. If the intelligent expert pilot and the proficient in mastership consider these distances,
68. he may compute the sailing distances of all places in the sea. Every pilot need to do it in his life,
69. if it is not an unknown distance in islands limited in number and lost in the sea.

30. because they are the basic heads in the opinion of all pilots using astronomy in their navigation.
31. The sailing distance between Dawā'ir's head and al-Qaḥḥaz is 12 zams by suitable swift wind.
32. There are 95 zams from al Qaḥḥāz to al-Ḥadd's Head, in my opinion.
33. 40 zams exactly separate al-Ḥadd's head from Zağad.
34. There are 20 zams between Cambaya and that head, forget not.
35. 25 zams separate Kanfār from Šātiğām.
36. From Dawā'ir's head to Šātiğām, be careful, young pilot,
37. the distance is 290 zams to which should be added two other zams to obtain the right number.
38. No exact distances for China and al-Maghreb could be found.
39. Nor two pilots agreed on and verified the sailing distances of al-Qumr.

63. [Sailing Distances at heads of Polaris five fingers]

40. Between Tawāhī and the islands, I mean Andamand, the isles of the sea,
41. there are 32 Zams; from Ṣadrāfattan to these Islands,52 zams in my opinion;
42. from Ṣadrāfattan to Mangalore, o omar,
43. there are 30 zams, it was reported, doubt not and be not a coward.
44. The ancient pilots said: the sailing distance from Mangalore to the Maldives is 20 zams;
45. Between the Maldives and Māmī's head, there are 72 zams, take my word.
46. From Socotora to Ḏubāb, according to the intelligent pilots in the computation of the sailing directions,
47. there are 60 zams, and there is another calculation which can be judged by the worst pilot.
48. The land of Ğamla is separated from Ḏubāb by 8 zams, understand my explanation.
49. From Polaris 5 fingers at Tawāhī to the land of Ğamla, I mean Hāhī
50. we count 260 zams and add to them four other zams.

13. No doubt that 20 zams separate the head of Fāl from Malabārāt
14. and 72 zams separates the head of al-Fal from Māmī's head. Take my word.
15. Some pilots say: the zams are 60, and prove it by the bearings of Sirius and Vega calculation.
16. When you go south, notable pilot, you add 8 zams
17. for each finger, o master; you are safe in both computations.

61. [Sailing distances between the Nāt Coast and that of Siam]

18. The sailing direction to Siam for the ship navigating in the open sea, is by Canopus
19. till its end at five fingers and a half of the Guards. This is my description.
20. Also the sailing direction of the Coast of an-Nāt is by the setting of Canopus. Understand my interpretation.
21. There are twenty two zams between the two coasts of an-Nāt and siam. Compute the other distances in zams by the following rule:
22. Between Šātiğām and Kunfār, I repeated it many times in my poetry,
23. if you go south, whenever Polaris decreases one finger, know
24. that your sailing distance increases by eight zams exactly,
25. which should be added steadily to the initial number between the Eastern coast and an-nāt.
26. The sailing distance between Ğāmus Fula and the Maldive Islands is 100 zams complete and exact.
27. You might find another distance, but this is the best computation.

62. [Sailing Distances at heads Polaris eleven fingers]

28. Henceforth, I abridged the sailing distances and put them in verses in the poem al-Ḥāwiya,
29. for the heads: Polaris eleven fingers, five fingers and one finger, and the Guards one finger. Here they are. Listen to me,

Chapter VIII

The Knowledge of the sailing Distances between the coast of Arabia and the coast of India, from Polaris 5 fingers to Polaris 11 fingers. Distances in Zams at four heads and the related informations, that are the basis of all distances in the sea. God know the truth.

60. [Sailing Distances between the coast of Arabia and the coast of India from Polaris 11 fingers to Polaris five fingers]

1. The sailing distance between the coast of India and that of Arabia is in my opinion,
2. and according to all other pilots, forty zams from Zağad to al-Ḥadd, o intelligent pilot.
3. The sailing distance between Maskat and as-Sind, is the same, and was verified by wise calculation.
4. 52 zams separate Midwar's head and Ḫalaf, in this description.
5. Dahrāwī and Madraka are 68 zams apart, o blessed pilot.
6. Sawqira's head is 80 zams far from Būriā, discuss not.
7. The experienced pilot gives 92 zams for the distance between Dandabāšī and Sāğir.
8. Know that the distance is 108 1/2 zams between 'Azdīv and aš-Šiḥr.
9. The sailing distance between Mangalore and the mountain of the Famous Dār zīna
10. is 130 zams as it results of my perfect calculation.
11. Dār Zīna and Māmī, in the reported calculation,
12. are separated by 37 zams and a half. This is my description.

181. By the setting of Scorpion, o brother, is an experienced course to ᶜArāba;
182. The pole, o pilot, to Suwayq; the Sillibar to the isles,it is verified, I mean
183. by its rising; to Masqaṭ by Canopus; also Qalhāt by this bearing.
184. By Centaurus al-Ḥadd is attained. Listen to my words, understand, you will be guided.
185. These are exactly the fundamental course; calculate other courses when you are sailing.

163. From Fartak to Guardafui sail by the pole, and leave Canopus,

164 to Mayṭ by the Scorpion, but the pilots told me it is by ar-Rāmiḥ till the setting of the Crown.

165. If you depart from the islands of Qanā by the pole, you will get Mayṭ without fatigue.

166. You shall arrive at Mukawwar and ʿAydarāt by the setting of Achernar (Muḥniṯ),

167. by the west, you meet Barbara, and by the setting of the Heart you see Zaylaʿ.

168. If you set sail by Orion from the Metropoly of Yemen, you shall see Socotora and its southern end clearly.

169. Sirius is the course (bearing) to ʿAbd-al-Kūrī, the Crown to Guardafui, o brother;

170. by the rising of the heart to al-Kuḥl Mountains; by Centaurus the mountain of Mayṭ stands high;

171. by the southern pole Barbara; then by the setting of Canopus Zaylaʿ will appear

172. After that I mention among these departure points, a ship course for the intelligent pilot.

173. Sail five zams in the high sea, off Mayṭ, you can get Midwar by the rising of Arcturus.

174. Whoever knows this computation is a perfect master of the sea.

59. [Departure points of al-Ǧumǧuma mainland]

175. If you depart from the head of Ǧumǧuma to the land of Mukrān, henceforth is the right course:

176. If you set sail by Cassiopeia to al-Karāzī, you may take the pole, it is a possible bearing.

177. By the rising of Capella is the course to Ṭāḥ Ṭāḥ, by Arcturus to Pasanī, oh friend.

178. The Pleiades are the bearing for Diul. Apply it and set sail without being curious.

179. If you depart from Ǧāš to al-Yamma, navigate by Arcturus.

180. If you desire, o brother, Milāha, sail due west, you will succeed.

58. [Departure points of Barbara mainland]

145. Regarding the departure points from Barbara to Arabia, I mention what I experienced to the experienced pilot.

146. From Mayṭ to al-Bāb, set sail by the Pleiades, to al-ʿAra by Arcturus, oh little brother,
147. but to Aden by Vega, to ʿAṣīda, I mean the wise ʿAṣīda of Haḍaramout,
148. by the pole. To aš-Šiḥr by the Calf, watch and sleep not as others do.
149. By Cassiopeia to Fartak, by Capella to Ḫūria, doubt not.
150. Whoever sails from cape Guardafui by the Great Bear, arrives to the islands, for sure,
151. to Fartak by the pole, to Burūm by the Great Bear, and to the Islands, Capella is not a bad advise.
152. But to Aden, byVega; Arcturus is a course to al-ʿĀra, o intelligent pilot.
153. To al-Bāb, the course is by the setting of an-Naǧm, I mean the Pleiades understand my poesy.
154. From southern Suquṭra, set sail by the pole to Ḥāsik, by the Great Bear to Ḍafāri
155. by Cassiopeia to Fartak, by Vega to aš-Šiḥr, and by Arcturus you arrive to the Islands.
156. The Pleiades will guide you to Dār Zīna, and the pilots are sure to go to Fīluk by aṭ-Ṭā'ir.
157. Set out by Orion to ʿAbd al-Kūrī, and to Ǧardāfūn by Sirius, it has been decided.
158. By the setting of the Crown, o brother, Banna will receive you, accept my guiding.
159. You will reach Ḥāfūnī by the Heart, this head is called Qalansiya.
160. Any pilot sailing from Māmī by the pole, will reach the islands by his courage.
161. You will arrive at Ḫayrīǧ by the setting of the Great Bear, you expect to reach Fartak by Capella,
162. aš-Šiḥr by the Pleiades. Sail by the setting, Dār Zīna appears to you clearly.

126. From Swīdū to 'Adū, my friend, the course is obviously by the rising of Canopus.
127. They are eight islands, at the end of all the isles, o pilot.
128. There are no inhabitated islands after them, but the ruins are numerous.
129. The Guards are four at them, go not farther when you reach them.
130. I saw many aiming points (nathăt), all of them are routes to the sea of Darkness,
131. ending at eleven of the Great Bear, and deviating to the East. This is the information.
132. I never saw any pilot mentioning any land, but a lier who abuses of your kindness .
133. We never heard any correct information about the end of al-Fāl, to be quiet,
134. but what I related in verse, so they say not I am not an ignorant.

57. [Departure points of al-Qumr mainland]

135. If you depart from al-Qumr mainland intending to cross towards the islands,
136. Navigate to Tīrī Rağā by Achernar from the side of Saᶜda, said my informer.
137. Set sail from Banī Ismāᶜīl harbor by the rising of Canopus, my friend.
138. From Munkār, by the rising of Achernar, you reach Tīrī Rağā, discuss not.
139. Also from Hadūda by the rising of the Scorpion, you see it, o high learned.
140. Or if your course is by aṭ-Ṭā'ir from around the harbor of Kūs, pretend not,
141. you will reach, o brother, Tīrī Rağā. You can reach it from 'Abya harbor
142. by the rising of Arcturus, o friend. Also to it from Kūrī by Capella.
143. These harbors are situated at the eastern side. Understand my poesy.
144. I would have doubled my description, if my informers were not contradictory. o brother.

106. Measure three fingers if you desire Tūrī, and exactly Kaffīnī also.
107. The pilots measured the island of Malakī and tried it two fingers and a half.
108. Its sailing distance from Kūlam Tamīl is 18 zams, ask about that.
109. In case you hold on Canopus after leaving Kūlam Tamīl, you will approach the Island of Iārdīb.
110. Polaris is two fingers in it and it is composed of 13 rocks in all.
111. Anyone who likes to go to Kīlā', the course is by the Heart for the intelligent pilot.
112. Kīlā' is a big island, my brother, at Polaris one finger, this is its exact measure.
113. From it to Muḥall, set sail by Canopus, I mean its rising at the west side precisely.
114. But you meet first Kandīkal and Ǧubtī, ask whom you like to about it.
115. Šīḥ Dīb and Kāradīb are at Polaris half a finger which disappears not.
116. Kandīkal is at Polaris one finger, and Ǧubtī at half a finger. listen all of you.
117. Off Ǧubtī is the region of Kandalūs. It is in the middle before Mālūsī.
118. At Muḥall, Polaris is at the level of the waters, and the Guards are seven exactly.
119. If you set out from Muḥall at night and navigate by the rising of Canopus,
120. you meet, o young pilot, Mulūk and Hadumatī, before Swīdū, listen to my discourse.
121. between Swīdū and Tayram Tūrī, the sailing distance is twenty zams approximately.
122. If you set sail from Hadumatī to Swīdū, profit of my words.
123. At Mulūk the Guards are six fingers; at Hadumatī, it is five fingers without doubt.
124. Navigate to it by the rising of Canopus. I say at latitude four fingers and a half of the Calves.
125. From Swīdū to Fulo Mulūk, by the rising of the Scorpion without any doubt.

86. They experimented not a true measure on its southern end which is the place of ignorants.
87. At its northern end, the altitude of Polaris is five fingers complete without any doubt.
88. The first line of islands is at Polaris 4 fingers and a quarter. Take my information and listen to it.
89. The coastal line is at Polaris 4 fingers exactly and is separated from the littoral by 12 zams.
90. According to the experimented man, the two lines are four zams apart.
91. Their experienced sailing direction is by the Pole of Canopus. 'Andaruwa and 'Akkatī follow the east.
92. But Malkī is aside the line, my brother, towards the setting of Canopus in the deep sea.
93. Their number is twelve islands. there are routes between them, if you pass by them.
94. All of them are inhabited till now. Leave them at left, if you pass by them.
95. If you set sail to the mainland of India, your course is by the rising rhumbs, discuss not.
96. I have been informed that the coastal line is composed of Kullatī,'Andaruwa, Kaffīnī, Malkī,
97. then Šatlākum, Kanğamanğalā, Kurdīb comes after 'Ammīnī,
98. with its sea reef; then Tūrī Ḫarāb follows the isles of 'Akkatī, take my description,
99. Tūrī Ḫarāb and Kanğamanğala have two reefs situated at the setting of Canopus.
100. But this former reef is big and distant five parasangs in the opinion of the best pilots.
101. And Fātiyya is a little bit deviated to the west of Kurdīb, my friend.
102. Between al-Batr and al-Furmalī, Polaris is four fingers by experience, my hope.
103. Polaris is four fingers between Šatlākum and Kanğa-manğalā, change it not.
104. I have been informed that Kallatī is four fingers, and 'Andarawa three fingers and a half.
105. O learned, 'Akkatī, Banğāram, Kurdīb have the same latitude as 'Andarawa.

68. towards Ĝīnā, my brother, and Farsū at three fingers and a half, it is measured.
69. Navigate by Vega to Mūsa Bārī and due west to Sunda Bārī.
70. From Karīmuwa sail by Orion, the Heart, the Crown and Sirius,
71. by their setting to the famous Java, and by Canopus to Timor.
72. They said: steering by the rising of Canopus to Banden islands is rare.
73. I mentioned these unknown departure points and I mean the forgetten tirriffa.
74. You shall see too many unknown islands at the east of this island.

55 [Sailing Directions of the periplus of Seylān]

75 The periplus of Seylān according to pilots is by the Heart from Murāšī to Šullam
76. If you desire to go from Murāšī to Qadarmalī, sail by the pole of Canopus as they assured me.
77. From there go to Šalāwam and Makātam by Canopus.
78. Change the course from Makātam to Dannūr, be courageous,
79. to the rising of Orion . Set Sail by aṭ-Ṭā'ir from Dannūr to Taykal.
80. If you navigate from Taykal to'Ayṭam. sail by the lucky Pleiades, you will succeed.
81. Keep on its rising and hold on it. Then from Ayṭam to Rāman Kūta by Arcturus.

56. [Sailing Directions of the Laccadive and Maldives islands]

82. The sailing directions of Fāl and Fāl islands is by the pole. Follow it and be not afraid,
83. to Muḥall, that high place, which is the territory of their Sultan and Wali.
84. Navigate by Canopus from Muḥall to the end of Fāl by Canopus. It is a good course.
85. Some pilots said the Fāl's course is towards Canopus from their northern end till their extreme southern end.

49. But the frontal side of Šumuṭra, my friend, has numerous and harmful reefs
50. which strech towards the littoral of the mainland, I mean Siam, be informed, my friend.
51. There are much dirts in the west and South my love,
52. Much dirts and reefs are in the west and east of Java.
53. Anyway, I related the famous places, I determined their names and those of the Islands.

54 [Departure points of the courses in the isles]

54. As for the departure points of the courses of the isles, my friend, I give you henceforth their description and their marks.
55. Navigate by the Pleiades if you go east from Karīmuwa to Bayān.
56. At Karīmuwa, the Guards are two fingers and a half by calculation.
57. Sunda is alike. Bayān is four and a half according to the pilot.
58. Set sail at night from karīmuwa to'Ūdī by Arcturus when you move.
59. Then aim to Vega till Mulūk and to Capella for Barnī, doubt not.
60. Navigate by Cassiopeia to Ṣawlak and leave it. Ṣawlak is at Polaris 2 fingers.
61. Go by the rising of the Great Bear to the island of Lībuwa at 31/2 fingers of Polaris.
62. By the rising of the Calf to Maqāsir at Polaris 2 fingers and a half, deny not.
63. But its southern end is at 6 fingers of the Guards. Take the description from who discerned and described it.
64. By Polaris to Zaytūn. By the setting of the Calf to Karīmā. Guide yourself by the isles.
65. By the setting of the Great Bear from Karīmuwa to Falītīk, this course is common.
66. From Falītīk you see the Calves five fingers, and some pilots say five and a half.
67. Navigate to Singāfūr by Cassiopeia and they say by Capella is a famous course,

30. at a distance of two months sailing towards the east and south for sure.
31. They say the Timor islands are numerous and spread from latitude Great Bear six fingers to Great Bear eleven.
32. Nobody mentioned any harbor in their southern part by a clear name
33. All what is related in the written documents of the ancient pilots are reefs and unknown isles.
34. They said Fāndā is opposite Timor in the east, know that.
35. The sailing direction to Java is by the Scorpion from the rear, it is a true course, lie not.
36. Then Šumuṭra according to intelligent pilots. These are my descriptions to you.

53. [Sailing Directions of Anadman archipelago]

37. The characteristics of Andamand Isles are as follow: the altitude of Polaris is five fingers in them and no more.
38. The sailing distance between them and the mainland of an-Nāt, is 52 Zams according to trustworthy pilots.
39. And between them and Bānden and Siam 33 zams exactly.
40. They are isolated in the sea, between them there are many routes which rejoice the sailors.
41. The largest ones my friend, are at Polaris four fingers and at one finger and half, follow them.
42. The sailing direction to them is by Canopus till Ǧāmis Fula, my confident.
43. If you hold on that course, you will meet only the islands
44. called Miqā Māruse, my friend. Māruse is an inhabited mountain in Šumuṭra.
45. Numerous ruins are around these isles. These are called the big ones.
46. May God not make their name famous, nor send to them any muslim friend,
47. or if you set off southward to Mahkufanǧ, navigate by the Scorpion.
48. The course to Lāmury and its mainland Šumuṭra also, is by the rising of Orion, be informed.

12. till Bahāya, the farthest at their right, o brother. Set sail from these isles by the rising of Canopus
13. towards tīkā, then by the Scorpion to Tūban, this course has no defect.
14. Hold on the Scorpion till Tīkākūta and the known Java, o brother.
15. Tīkākūta is an inhabited island where you may meet peoples at any time.
16. Follow the pole, a true course, to Calves four fingers, I mean Falītīǧ.
17. If you set out from Tīkākūta towards Java and its harbor, listen to me.
18. Sail by the Scorpion four zams till it is unseen beyond the stern of your ship.
19. Then you perceive Sunda Bāri, the littoral route for the travellers.
20. Also, you might see three isles clearly inside Sunda Strait.
21. Their shape is towards Sirius and the Crown, and the route passes among them according to the Guide,
22. between the ends of the two islands, I give a sure description of them.
23. The Northern side is towards Java; the southern one towards Šumuṭra, o young man, be careful
24. Sail by the Scorpion by sight till Java at two fingers of the Guards,
25. you find a big isle off its harbor, its name is Tūban.
26. Leave it at your left, and enter Java Harbor successfully and gainfully.
27. If you desire Ǧaršīk and Sarbūya, these are harbors where gifts are given, o brother.
28. Their emplacement is covered with plants till the residence of the king at a distance of one day march at a high speed.

52. [Sailing Directions of Timor archipelago]

29. Nothing is at the south of these harbors but Timor Šāšī and Fanden and numerous islands,

Chapter VII

Sailing Directions and departure points of the Islands Maharāğe, Sumatra, Fāl, Qumr, Yemen, Coasts of Abyssinia, Somaliland, Aṭwāḥ, Mukrān, and lands in between. Informations related to those subjects, in accordance with oral sayings and written documents. God know the truth.

51. [Sailing Directions from Malacca to Java]

1. If you travel from Malacca towards Java, understand the sailing Directions.
2. Navigate by the Scorpion till Sīna becomes in the stern of your ship, you will succeed.
3. Then Sail to Bahāya by the rising of the Crown, the clearest route.
4. But before you reach Bahāya, you should pass on your way by the isles of Fisang and the strait of Charimon,
5. and Hānuwa also. From this island, keep the sound always in your hands.
6. Let not the depth be less than six armspans till salt zanğī and Bahāya, so you get out safe.
7. Beware of the big danger in that place, when you are still near Salt Zanğī.
8. Harry to the sound, then Zigzag till you reach the island. Listen to my guiding advises,
9. because this is the beginning of Mūsa Bārī that all travellers know.
10. Balītūn Islands are beyond Salt Zanğī, in the East. They produce aromatic wood.
11. Leave all these isles at left, o traveller,

103. After this region, there is no normal people, worth travelling,
104. because they are at the end of the world and fancied by the mind in fact.
105. We heard not any other knowledge and this learning is referred to by the masters of the sea.
106. O, friends, this is the end of the sailing directions, I mean for the coasts,
107. in the west and east, in Arabia and in foreign countries, in al-Qumr and China. This is the conclusion
108. about the correct ones, and I left the obscure ones for the boasting lier.

82. Sail due North Pole from Ṣūra to Šahr-i-Naw. You arrive at that bearing by conjecture, then sail by it to your destination.
83. From Šahr-i-Naw to Kumbusa, your course is by the Scorpion, I mean its rising, not its setting.
84. From Kumbusa set out to Šanfā' by the rising of the Great Bear.
85. When you follow a bearing and meet a strong wind,
86. I mean the Šilī or the wind blowing from Arcturus point, and the wrecking gale blowing from the rising,
87. between Ṣūra and Kumbusa, approach any land and cast the anchor in the sea of Barnī.
88. Set sail to it by the rising of Canopus from Šahr-i-now one finger, my friend.
89. Also by Centaurus, then by the North Pole, because it is big when you come near to it.
90. Its northern end is at the level of the water. It is at five fingers without discussion,
91. and is by the rising of aṭ-Tā'ir from Šahr-i-naw. Polaris is five fingers in both of them by sight,
92. like Timor archipelago at the south of Java, my dear.
93. From Šanfa, your bearing is Vega which is the shining and rising eagle,
94. to the harbor of China, called Zaytūn where Polaris' altitude is twenty fingers.
95. From Zaytūn, the bearing to the end of the China king possessions,
96. by the rising of the Crown, according to the informer following the experience of China and Java pilots.
97. The Turks habitations are scattered in the north and west, my love.
98. There is Gog and Magog in some isolated northern islands.
99. If you like to hold one course from Singāfūr, set out to the high sea
100. towards Šahr-i-naw, Hatūn, also Qaltūn and ʿAltūn
101. then Zaytūn and you reach your destination. The name of the King residence is Kunbālak.
102. Yoụ find nothing at their southern end but dirts, and al-Ġūr as says al-Qāḍī, the historian

64. Set out to Qafāṣī by the rising of Canopus, understand the courses and discuss not.
65. The South Pole is the illustrious bearing from Buttam to Takwa strait.
66. O, good pilot in that art, if you set out from Fulo Sambīlan
67. to Qafāṣī, navigate by the rising of the Scorpion's Heart. Sail towards it and avoid
68. Dinğ Dinğ and Fulo Sambīlan, which are one finger apart. So, deviate not.
69. As to Ğūhūr, the bearing is Centaurus, and to Barhala, Canopus, use your brain.
70. From Takwa to Šumuṭra, my brother, the bearing is Achernar, by experience, and is the nearest.
71. Some masters said the best route is by the Pole of Canopus.

50. [Sailing directions of the China mainland]

72. And if you set out from Šumuṭra towards China, when you sail at night,
73. navigate by the Crown happily to Barhala, and to Ğūhūr also.
74. When you pass them, sail on the rhumb of Sirius, and slow not
75. till you reach Malacca. Listen to my procedures, and the depth of the water is ten « armspans ».
76. Understand that: before you come to Malacca, you will pass by Full Bāsalār and Qafāṣī, be informed.
77. Ful Bāsalār is the mountain of Qafāṣī, and Qafāṣī is a reef under the water.
78. Ful Bašalār has anchorages, if you see it by Arcturus, thank God.
79. If you set out from the mainland of Malacca, be sure you steer by Sirius, o brother,
80. towards Sinğāfūr. Leave Sinğāfūr towards Tīk by the Great Bear.
81. Navigate from Tīk towards Ṣūra by the setting of the famous seven Stars of the Great Bear.

48. From Sundīb and Fārdīb to Benğāla of Šātiğām harbor, by Sirius certainly.
49. At Šātiğām, Polaris is ten fingers and half; some captains give another altitude.
50. But the ancients said Polaris is eleven in the two Benğālas. So make your own experience.
51. Whoever sails near the mainland, should set sail from the estuary of Šātiğām
52. to Zinğilāt, due the South Pole after passing the obstacles.
53. From Zanğiliyya to Nāğirāšī, hold on, my friend, to the setting of Canopus.
54. The Scorpion, o seafarer, is the illustrious bearing from Nāğirāšī to Buttam;
55. the rising of the Scorpion according to aš-Šūlī, from Nāğirāšī to the island of Fālī;
56. the rising of Sirius, o captain, from cape Nāğirāšī to Marṭabān,
57. because cape Marṭabān is transverse ahead all Siam, o inquirer.
58. There is a chasm covered with little water, between nağirāšī and Marṭabān. Be careful, navigate not by Orion.

59. If you intend not to go to Feyğūh or to Kašmīra keep sailing by Sirius till you reach
60. Marṭabān, then your true course to Butaqāla is by the South Pole.

49. [Sailing Directions to the mainland of Siam and to Takwa archipelago]

61. Navigate by the rising of Canopus from Fūlo Tawāhī to Buttam, you will be safe.
62. So is the route to Takwa which are numerous islands without reefs.
63. (added) whoever sails from Buttam to Takwa, should steer by its rising in order to reach it

29. From Murāšī to Akrakūrī, sail due North, it is the true course,
30. also to Mutabalī due the North Pole, I mean Mutabalī at Polaris six fingers clear
31. And to Akrakūrī from Nakafattan steadily by the rising of the Calf.
32. Akrakūrī is a bank covered by water, exactly opposite Ṣadrafattan.
33. From Akrakūrī to Ǧudāwarī, by Cassiopeia, I mean its rising, strain not.
34. From there, if you intend to go to Fašāš, navigate by Capella and be courageous.
35. I mean Fašāš at Polaris nine fingers and a half. From Fašāš to Fūfalm, take my description,
36. Your course is due north, be careful, deviate not from this route. Polaris is ten fingers at Fūfalm.
37. Ǧamāl dandī is opposite to Fūfalm at the sea. There is a good route between them.
38. Ǧamāl Dandī is a shoal plenty of stones, leave it at left and approach it not.
39. Some captains leave it at right when necessary, be intelligent.
40. From Fašāš, my brother, to Ǧamāl Dandī, by the rising of the Great Bear, navigate to it.
41. The Famous pilots said to Kanfār, the course is by the rising of Capella.
42. Before you reach it, the watcher climbs on the mast; if he see it, incline and navigate by the Great Bear.
43. Leave it at right, and go to your harbor of the first Benǧāla, and believe your informer.
44. The sound is not useful there. Navigate not at night anyway.
45. If you set out from al-Kanfār by Arcturus,
46. you will reach Sundīb and Fārdīb which are two islands situated, according to the learned
47. at Polaris eleven fingers, and are populous as it is said.

10. till you reach Kūlam — this is the coastal course — and some Captains said till Kumārī.
11. The Šola pilot said: the course from Kūlam to Kumārī is by Scorpius, decide and navigate.
12. From Kumārī to kayāl by the rising of Capella, verify and discuss not,
13. by the rising of Vega straight on, and by the rising of the Ostrich in the little gulf.
14. From Kumārī to Šullam, the course is by the rising of Arcturus; go ahead and take the opportunity.

46 [Sailing Directions of Seylān]

15. From Šullam exactly to Murāšī, the course is by Capella
16. Murāšī head is the northern end of Seylān my brothers.
17. Nakafattan is opposite to Murāšī, on the mainland littoral, by the setting of Vega. Be careful.
18. Four zams separate them, at the end of the Gulf, o vigourous man.
19. In case you are in a big ship sail not to Šullam;
20. navigate to the south of SeylānMay God save you from the long distance and the strong rains.
21. If you set out from Qumārī, follow the east of the Scorpion towards nearly Ṭūṭāğām.
22. From nearly Ṭūṭā set sail to nearly Dannūr by the rising of Orion without discussion.
23. From Ṭūṭā to Dannūr by the rising of Sirius and be intrepid.
24. From Dannūr to Rāmankūta, hold Arcturus, o Intelligent man.
25. If you like to pass between it and the mainland. do it and be not afraid of any harm.
26. In case your course is from Dannūr to Rāman is by the rising of the Great Bear, learn this:
27. Tirkunamalī will be at your left, so change your route and navigate
28. by the setting of Vega to Murāšī, and some captains said by Capella.

Chapter VI

The Sailig Directions to Persia, India, Šola's coast an-Nāt, al-Bunǧ, Siam, till the windward lands such as Beliton and al-Maharāǧe, al-Gūr, in accordance with true infromations.

44. [Sailing Directions to Persia mainland]

1. Henceforth, I explain to the Pilots the mainlands of Persia, India and Siam.
2. First, when you set out from Ǧarūn, navigate by Canopus and hold it
3. till you reach Ǧāš, o Proud man. Beware of Ǧazza before you arrive at Ǧāš.
4. From the high sea off Ǧāš's head, set sail to Sind by Orion, and incline to the Flying Eagle,
5. because this sailing direction is somewhat wrong: some captains sail by Orion, some others deviate aside from Ǧāš's head.
6. I sea not in its refusal any good; you should navigate by it, o good pilot
7. because the ignorants are becoming numerous in my time; one discerns not the unlearned from the erudite.

45. [Sailing Directions to India mainland]

8. Listen to me about the sailing directions from Diul to Mahāyim.
9. Beware of deviating from the Scorpion. And from Mahayim hold Canopus

135. Know that around al-Qumr, there are dirts, reefs and islands.

136. (added) At Plough seven fingers and on a shallow, incline to the left and steer on Arcturus' rhumb,

137. (added) till you reash latitude 8 fingers of the Plough as says who sees the Plough high.

138. This is the description of al-Qumr. I shall relate the fundamental mesurement in chapter nine.

116. Other captains said all the course is by Sirius. This is what is apparent, o intelligent man.
117. Al-Qumr is called after Qāmirān son of Sām son of Noe, our second father.
118. There are many islands off al-Qumr, when you pass it. They have their own signs.
119. There are also shoals and reefs. They lay south of al-Qumr,
120. at Twelve Zams, o captain. They are big and have high mountains.
121. Nobody knows their number, nor how much the Plough measures in them. They are located in an empty place.
122. But the departure points and the distance will inform you about them, o clever man.
123. And the pilots of the regions of al-Qumr have special departure points for them, they acquired by experience.
124. They bring ambergris from these islands since very old times.
125. Some captains say that al-Qumr and az-Zanğ end not till the plough becomes unseen.
126. They see the lost ship if she sail in the middle of the southern part. May God protect you from making mistakes.
127. Anyway it is a place of sorrow and grief. Its reefs, waves and tides are awful.
128. If a ship enter, by the will of God, the Ocean Sea, in spite of the short time,
129. she will not have but the mainland of kanem. The southern Sudan is desert, be informed.
130. Some captains say that Kuri's harbor is at Plough one finger at the extreme southern end of al-Qumr, o pilot.
131. In the extreme north is Lūlūğān which was reported to be at Plough 10 fingers,
132. and is situated between two heads in a deep which protects the ship from the southern wind, Take my word.
133. I mean al-Milḥ head at eleven fingers; and Manzilāğī is said to be at Plough ten fingers.
134. The erudites say the wid[th] of al-Qumr is twenty zams.

99. They say that in old times the Greek ships used to go to Qumr.

100. Also they used to come to az-Zanğ mainland and India according to their authors.

43. [Sailing Directions of al-Qumr Island and of the neighbouring islands]

101. At the northern end of al-Qumr, the elevation of the plough is certainly eleven fingers,
102. I mean at al-Milḥ head, o powerful man. The Arabs and the strangers know this.
103. Some captains say it is 12 fingers. Anyway its western side is eleven fingers.
104. Between this head and Qāyel, there are 56 zams without any obstacle.
105. Anğazīğā is between it and the mainland. It is the best known among the islands. Take my information.
106. (added) Dumūnī and Mulālī are certainly at Plough 11 fingers.
107. (added) But Muwūtū is at 10 ½ and is the best known, take my description.
108. There are many other islands in the sea. Some of them have names; some have not.
109. God, the Inspirer of the Gospels, know the southern head of al-Qumr.
110. We have not heard any true knowledge or measurements or courses about it.
111. We are informed about its septentrional head, about al-Qumr's harbors, the Sultan's residence and the islands.
112. We shall explain exactly all that in another chapter with the departure points.
113. The sailing direction of al-Qumr is on the setting of Sirius. The waters there are rough for navigation.
114. There is another strange report: some rare captains tell it by experience.
115. It says that the sailing direction to the extreme southern end of al-Qumr, at Plough one finger, is on Canopus

84. From Hağra to Fīluk, the plain course for the travellers is by Arcturus.
85. From Fīluk navigate to Mūsa Harbor on the setting of Orion, o Chief.
86. If you like to go from Fīluk to Ḥāfūnī, set out by the rising of Canopus for sure.

42. [Sailing directions of the littoral of az-Zanğ mainland]

87. The sailing directions to az-Zanğ is on the setting of Canopus. Hold it and deviate not.

88. This course is plain when the ship starts from latitude Polaris five fingers and Sail towards Munfia and al-'Aẖwār.

89. But when the ship reaches the latitude of the plough ten fingers, the banks remove her away from that course.

90. If you have not experienced that place, the pilot alone can guide you

91. to Sofala. The land ends at latitude five fingers of the Plough.
92. No land can be found south of it, and the region of al-Qumr is far-off it.
93. They say: the Šağara harbor is the end of Ḥabaš's mainland, when the Plough is no more seen.

94. There is situated the source of the Nile of Egypt according to Ibn Ḥawqal, the vigorous and reference man.
95. May God exempt us and every Muslim from needing this dangerous and obscure place.
96. Some captains report strangely that from there towards the north West
97. stretch the islands of al-Maġrib and the endemic area of the southern part of the Ocean Sea.

98. The sailing distance between them is big and lasts one month in strong winds.

67. Along it, the rocks and an-Nuʿmān can not be seen from Egypt.
68. In case you see al-Quṣayr and an-Nuʿmān, set sail on Capella, o pilot.
69. But beware, o captain, of the rocks in the water and of the banks.
70. Some captains said the course by Capella from an-Nuʿmān leads to Šadwān in the sea.
71. Šadwān is an island, my master, in the sea off 'Abī Muḥammad's head.

41. [Sailing Directions to the mainland of Berbera]

72. Henceforth are the sailing directions of the mainland of Berbers. I will relate their explanation and elucidate them.
73. From as-Saʿīd to Qaryat aš-Šayḫ, the coastal sailing direction is by the west. Listen to me.
74. From Qaryat aš-Šayḫ, the land bends towards the setting of the Plough till Ras Barr's head;
75. also till al-Ǧīn, o traveller, but beware of the mud and of the uncovered rocks.
76. Every intelligent pilot should beware of the dirts, my dear.
77. From there to the north, my brother, the frequented course is by Capella according to inspiration.
78. I would have expounded all what the trustworthy captains asserted, if I were not afraid my explanation would be lengthened.
79. I would have explained the straits and mentioned the islands in their reality.
80. But the pilot is responsible of such things. Understand that even if you are an erudite.
81. Henceforth I report a second description, transmitted from pilot to pilot.
82. From as-Saʿid to Ras Ḫanzīra, the plain course is by the rising of Arcturus.
83. From Ras Ḫanzīra towards Hağra set sail on the rising of the Pleiades, and navigate by the help of God.

49. He described five routes between the right and left shores: the western one, the middle ones, and the eastern one.
50. But I abridged this path alone: it follows the deep waters.
51. In this route, the tide is helpful, northern, strong and strengthening.
52. As to the northern routes, they are difficult. Comprehend all routes.

40. [Sailing directions from Sībān to al-Quṣayr and Suez]

53. The coastal sailing directions to al-Quṣayr and Suez have not been mentioned by anyone
54. of the pilots and captains but me, because this route is not safe.
55. The banks do not allow to navigate in a single rhumb. This is my true information.
56. But the route of the high sea, my brother, is an easy one from Sībān
57. to 'Abī Muḥammad's head. The course is by Capella and Cassiopeia and no other rhumbs.
58. 'Abī Muḥammad headland appears as a promontory between two deeps:
59. that of 'Īlā and that of aṭ-Ṭūr, whose name is so known among all Nations.
60. From 'Abī Muḥammad's head to Suez, take my descriptions and set sail by the fair and constant south wind.
61. Al-Quṣayr is the land of the country at left. Comprehend my adaptation.
62. [this verse is added: There are many roads, my brother; between Suez and Al-quṣayr: all are dangerous]
63. The name of this route is Garandal, they say it is the place where the Pharao was drawn.
64. Opposite to it is the city of Klysma: it is in fact a village which gave its name to the sea in old times.
65. From there, the sea becomes narrower and the two seas of Hedǧāz and Egypt meet.
66. This is the route from Sībān to 'Abī Muḥammad's head, my brothers.

30. But in the east, o pilot, a bank appear to you, go on and leave it behind.
31. This bank is nearby the eastern side of the island, and between them is a good road.
32. There is also a road at the western side of the islands ('Abāʿil), and the bank can certainly be seen from them.
33. Umm Šayṭān is a sand bank and a shallow, which can be seen in the east from Al-'Abāʿil.
34. When you leave them behind, you see Sībān which has anchorages protected from all winds.
35. Approach it from any side you come. May God protect you from harm and hardship.
36. From there (Sībān), navigate diligently till latitude Polaris eleven fingers minus a quarter. And remember it.
37. Direct the bow of your ship exactly to Cassiopeia and Capella in that place.
38. Then incline to the east to Hedǧāz and enter Ǧudda, the Harbor of the noblemen.

* * *

39. Or, if you like to shorten the course, steer, my companion, when latitude Polaris is nine fingers,
40. to the Plough and Calf, then go straight on towards the North Pole. May God save you!
41. But in case you see the Dāniq islands, these sailing directions will lead you aside destination.
42. If you see al-Marma' and al-Ǧadīr, steer on Cassiopeia and behave worthily,
43. to Ḫumays, then incline to al-'Aswad, beware of the dirts in that place, and move away.
44. The ships follow that road I explained in short. So, no wonder
45. if you take, o captain, another one, and steer on aṣ-Ṣarfa in case you see it.
46. The other routes are numerous, but they are tiresome and dangerous.
47. My father described them before me, and left not anything to be described by someone like me:
48. to the right and left, towards the north and towards all directions of the shores exactly.

11. From Ḫūria Mūria islands to Fartak's head, steer, o my brother, on the Crown setting, and be brave.
12. From Fartak's head set sail to the big city of Yemen, I mean Aden, on Sirius, be steady and hold it,
13. I mean on its setting, oh scientists. From Aden steer on Orion, you make al-ʿĀra.
14. Also, the course from the coast of al-ʿĀra to al-Bāb strait, is on the Flying Eagle, be not presumptuous.
15. Sail not at night, oh little brother, and gaze (explore carefully), if you are not familiar and sure of the road.
16. They say you might encounter the famous reefs having high tips and looking black.
17. Between these reefs, my friend, and 'Aṯāfī, there is a long way, take my descriptions.
18. In case you follow that road to go north, beware of Ḏubāb. I salute you.
19. Al-Bāb is an anchorage protected from the strong north wind. If you desire to anchor in it, do it.

39. [Sailing directions from al-Bāb to Ǧudda]

20. Be informed if you set out of Bāb al-Mandam's strait to go to Zuqar, your course should be by the Little Bear.
21. But beware of the Ṯawr and Ḏubāb's Heads, in case you travel to Zuqār from that strait.
22. As you should beware of Ǧazza's head when you travel from Ǧāš to Ǧarūn, o proud pilot.
23. Az-Zuqar has at its northern side an anchorage protected from the north and south winds, don't lie.
24. The fishermen live in its northern side, in the west, my love.
25. At that side, in some places, there is a road due the North Pole, my companion,
26. to Naṣab, al-ʿUryī, al-Ḥadīd, al-Bādiʿ, and az-Zuqar, oh my Guide.
27. Know that in its southern end, there are harbors in the west and in the east. Leave them and navigate
28. by sight by Capella setting to 'Abāʿil and Sībān
29. 'Abāʿil has, o captain, various anchorages, known to the experienced man.

Chapter V

The sailing directions of south Arabia, Hedjaz, Siam the Berber's gulf, Somaliland, Rim, Zanǧ, Qumr islands, till the end of Sudan and Kanem, in accordance with astronomical calculations and written documents.

38. [Sailing Directions from Ǧarūn to the Strait of Bāb al-Mandab]

1. Hereafter is the explanation of the sailing directions, abridged in verses, composed by the Intelligent Pilot.
2. First, from the Sultan's harbor, I mean from Ǧarūn, the safety city,
3. to Fakk al-Asad's head, steer towards the South Pole, then turn aside to the left, and be diligent.
4. Hasten towards the rising of Canopus, you make Suḥār, the allied city.
5. If you wish to go from Suḥār to Maskat, set course towards Orion and don't delay.
6. And from Maskat to Qalhāt, set sail on Canopus steadily.
7. From Qalhāt to al-Ḥadd's head, point on Orion and don't leave it.
8. In case you desire not to sail along the Arab Land, steer towards the Scorpion from Fakk al-'Asad's head to al-Hadd's head.
9. Canopus guides you, if you travel from al-Ḥadd's head to Maṣīra island.
10. From Maṣīra island, oh boy, to Ḫūriya, your course is on the Scorpion, it is experienced.

169. By the grace of the Sovereign who knows every thing, I have finished the heights of the « Small Stars » (mansions) of the south and north,
170. computed upon the Nuruz, the setting of the Stars, and the Byzantine months, without fault.
171. Between them and us, there is a difference in counting the years, oh, you who knows well.

150. This suits you. On September 28th, listen to my words.
151. Between that height and Aldebaran, Capella and its Companion become in horizontality
152. above the north pole, and Capella stays high towards the Pole
153. in horizontality with its Companion, my friend. It is a good height. Measure it on its time.
154. It is two fingers and a half, my friend. Al-Mīḫ and Polaris are equal? Take my description.

36. [The height of the Lions' Arm]

155. Spica rises at dawn on the 320th day of the Nuruz.
156. At this time, the Lion's Arm culminates. Its height is one finger and a half in that place;
157. from the 11th day of October according to the Calendar
158. till past four months of the Nuruz, my friend.
159. Also, at that time, the night and the day are of equal duration, and the people eat the grapefruit
160. They harvest the barley. It is called the Automnal equinox.
161. In October the Arab Moon is in conjunction with the Scorpion sign

37. [The height of the Lion's Eye]

162. On the 350th day of the Nuruz, the Claw rises at dawn exactly.
163. The Lion's Eye culminate, above head; and Polaris and the Calf are in horizontality.
164. But the Calf position is towards the east, I explained that correctly.
165. The height of Polaris at that time is one finger and lasts five months for sure.
166. This rising occurs on November certainly
167 The ten heights are finished now. The intelligent pilot finds by them the necessary course.
168. I intended to shorten my poetry in order to avoid the excesses.

133. Calculate this on September's second day. At that time, the east winds will be met
134. between Hormuz and al-Bāṭina, and from Aden to Fartak, remember well.
135. Then, you see Achernar on the eve of its setting, measure it and measure Canopus
136. before the setting, don't forget, if the Pleiades culminate overhead.
137. Each of the two will become, young man, two fingers and a half, you can see it by your own eye,
138. in the places where the height of Polaris is eleven fingers, without fault. If you increase it, Polaris will descend joyfully
139. one finger for each finger on the Arabian and Indian Coasts. It is an excellent measurement in my opinion.
140. My friend, the Claw and Canopus will be in horizontality, understand what I mean,
141. in that period, clearly. They are six fingers plus, on the headland al Ḥadd
142. till the 80th day of the Nuruz, then they set and can not be measured, this is experienced.

35. [The Height of Mirzam]

143. On the 305th day of the Nuruz, the Barker rises at dawn, and the sun
144. is in the Cover which is the beginning of the Balance sign in the « long times ».
145. The Orion's Left Shoulder's mansion culminates; then the height of Mirzam is two fingers and a quarter, take advantage of it.
146. Know that the Big Calf will be vertical on the Little Calf.
147. Measure them both on the headland al-Ḥadd seven fingers tight; it is a good measurement, don't leave it.
148. And keep taking it for three months and fifty days in plus,
149. I mean, of the Nuruz. After that, it will be finished, and another measurement will suit you. Calculate and memorize.

115. This measurement last my friend till the begining of the Nuruz, and till the runoff is shown on the ground.
116. All this will pass. May God protect you from the ignorance and from clashing the land.
117. After that, the Luckiest Star's mansion culminates . The height attained its extreme value before that rising.
118. Its height is then three fingers and a half, when the good measurement is taken on the islands.
119. Listen, brother, the height of the Whale Belly and the Female Camel is four fingers.
120. This is the last height of the southern mansions. Apply it and listen to my description.

33. [The height of the Ram's Horns]

121. When 250 days and three extra days to be exact, have gone,
122. The Lion's Eye rises at dawn, and the Ram's Belly culminates.
123. then, Polaris will be vertical upon the Big Calf, and its height will be three fingers and a half. Imitate it.
124. The elevation of Dubhe and of the Big Calf is five fingers on the headland of al-ḥadd. Understand and follow it.
125. Canopus rises like a lamp from the South in al-'Aṭwāḥ land.
126. This rising occurs on the 7th day of August as calculated.
127. My Dear, my explanation is valid for two months of the Nuruz.
128. Know, my brother, that the opposite of the culminating star is the Claw without fault.
129. Be careful. don't steer upon the Calves.; their measurement may not be taken.
130. The Calves are all approximate, but they are correct with the Ram's Belly

34. [The height of Aldebaran]

131. On the 280th day of the Nuruz, Aldebaran culminates
132. at dawn, and the Lion's Neck rises at dawn. Its height is three fingers at that situation.

96. This measurement is obtained at dawn on the 15th day of June, according to what has been mentioned.
97. Also, you surely see at that time the Arrow's Head., and the Calves.
98. Take the Calf 10 fingers upon the headland of al-Ḥadd, when the Arrow's Head is in horizontality, and don't exceed ten.
99. The difference between them is easy and is not worth separation.
100. The experienced pilot can measure the Sillibar and Vega
101. especially below in the first climate, my brothers, understand my poetry and its meaning.
102. Their measurement, my friend, is four fingers at the Headland al-Ḥadd. Listen to my advise.
103. Vega is setting; and the Oath Breaker is still on the eve of rising.
104. When Polaris decreases one finger, Achernar increases.
105. The bright Vega stays four fingers and doesn't change, for true.
106. On the headland al-Ḥadd, the measurement of the Oath Breaker has given four fingers. Anyone who breaks his oath is mistaken.
107. [because the mansion attained its extreme height above the horizon, it does not need to come nearer]. [False Verse added].
108. This is true till aṭ-Ṭāir setting, my friend, and then it resumes its motion towards the setting point.
109. If you see that the measurement of Vega is two fingers, then Achernar is on the level of the South Pole when observed by human eye.
110. So are also the Two Asses and Crux, oh, well informed pilots;
111. if their measurement is done then they are in horizontality, and on the same level as the South Pole.
112. Take the measurement of Achernar and Vega when Sirius rises, you will be right,
113. because Achernar is nearer to the South Pole than Canopus, my friend.
114. Achernar is farther than Crux from the South Pole. Listen to me.

79. But Polaris position is rather shifted a little bit to the east, because it is the origin, take my word.
80. The Lucky Swallower culminates, my brother. There are two good points of View about this.
81. There are also two points of vue about the Swallower's opposite, I mean about the Lion's Sneeze, seen by human eye.
82. Some peope say the Slaughter culminates, I showed it to the good thinker.
83. At that time, the Southern Mansions appear in the heavens and don't set,
84. and all the northern mansions are under the horizon, my brother,
85. except some of the Ram's Stars, such as the Ram's Horns. Ask anybody you like to, about this.
86. The height of Polaris is three fingers exactly, oh, happy man!
87. Its measurement lasts, my friend, till the 300th day of the Nuruz clearly,
88. plus twenty nights and three nights to complete the number of days.

32. [The Height of the Anterior Pourer]

89. When 201 day have gone from the Nuruz, oh, Pilot full of energy, understand me,
90. when the Lion's Head rises exactly at dawn, and the Anterior Pourer culminates according to the calculation,
91. when the Two Calves have the same measurement of eight fingers at the headland al-Ḥadd,
92. when the Sillibar is above the sea and has a measurement of one finger without fault,
93. when γ Cephei stays above Polaris, and both are on the eve of descending,
94. then, the height of Polaris is four fingers and Polaris is in its extreme position.
95. The height of the Lion's Tail is opposite to that. This decreases the height and that increases it.

62. The height of Shaula is one finger and a half in another descent. This is my description.

30. [The height of the Ostriches]

63. When four months and three days have gone from the Nuruz,
64. the Posterior Pourer rises always at dawn and Polaris culminates absolutely.
65. This occurs at the end of March according to the calculations of astronomers. It is a good time.
66. In that season, you see the odoriferous plants and the flowers. I inform you.
67. Then, the Little Calf occurs over the Big Calf at the west.
68. Polaris height is one finger and a half on the 290th day of the Nuruz
69. Polaris height is two fingers when Shaula culminates according to another saying.
70. Then, the two Eagles culminate. Look at them by your own eye. The height increase, a quarter of a finger.
71. The height of the Eagles is two fingers, even more, their opposite is Sirius, oh, praiseworthy man,
72. because every height has an opposite one, oh, pilot!. When the opposite star is moving.
73. I mention this in that chapter, because it is a part of the true science.
74. Some people say the height of aṭ-Ṭāir increase, half a finger. Know that.

31. [The height of the Swallower]

75. When five months and a half have gone from the Nuruz, The Ram's Belly rises at dawn. This is my description.
76. Aldebaran and Capella rise with the sun exaclty.
77. According to another computation, if you like, beginning May 7th, seven is the calculation of an acute clever pilot,
78. the Big Calf on that date is on the level of Polaris, rely on it.

44. The intelligent pilots called it Polaris Pin, because it pins the (north) pole.
45. When Polaris Pin reaches the setting point of the Calf, the Calf sets with the two Asses, be informed.
46. They rise together, and pass together over the pole at the same time.
47. Then, it accompanies the two Claws, as it is prooved by its height which is half a finger.
48. Canopus is opposite to the Slaughter mansion: when one of them sets, the other rises, my adviser.
49. If the ignorant see it, he will not find it correct above and under four fingers.
50. These motions are apparent. I explained some of them and some are obscure,
51. because nobody helped me to understand them in my time.

29. [The Height of the Claws]

52. When seventy days have gone of the Nuruz, the Lucky Swallower rises at dawn, this is a true information.
53. Also, the two Asses come into horizontality, and the Great Calf culminates
54. high above Polaris. The Height is then half a finger. Understand this, oh, intelligent pilot!
55. The elevation of the Asses is five fingers at al-Ḥadd headland. It never exceeds this figure.
56. From February 5^{th} on, the five fingers stay always during this occultation, my companion.
57. The Sting's mansion culminates at that time, and the Lion's Eye mansion has a place in the west.
58. From that time on, the Calves are vertical and Polaris is above the water;
59. It is calculated that they stay till the 200^{th} day of the Nuruz, and the pilots tried another month more.
60. Let it be known that Polaris, when above the water, takes the height of the Pourer. Enquire about this.
61. When the Northern Hemisphere's mansions culminate, Polaris does not reach them nor up nor down.

28. Polaris smallest elevation happens at this time, I mean when the Lion's Tail mansion culminates, oh, my beatiful!
29. Then Polaris elevation attains two fingers, learn it and do'nt discuss.
30. Let it be known, my friend, that the Calves have the two equinox points without anything else.
31. Say it to all the world. They rise at that time and appear.
32. The descending Calves set in horizontality when the Pourers culminate.

26. [Polar Distance of some stars]

33. The Polar distance of Polaris is two fingers. I am telling it to you.
34. The inexperienced Pilot thinks it is the pole, because it is the most renowned object in the vicinity.
35. The proof is clear like the sun: after the culmination of the Whales Belly mansion, the Calf diminishes.
36. The polar distance of the Big Calf is said to be eight fingers, sir.
37. The polar distance of γ Cephei is said to be eight fingers also.

27. [Disposition of γ Cephei, Polaris, North pole and the calves]

38. γ Cephei, Polaris, the North pole and the Calves are disposed like one illuminated letter
39. of the Arabic Alphabet, I mean the Lam. The Pole is situated on its bending, be informed;
40. γ Cephei on its head and the Calves on the tail. This is its appearance.
41. You may draw it from right or from left
42. But they form a clear straight line, when the Pourers' mansion culminates.

28. [Disposition of γ Cephei, Polaris and the North Pole]

43. γ Cephei, Polaris and the North Pole are disposed in a straight line, not curved.

10. Neither the stars of that mansion, nor Spica have any height at that time.
11. The pilot can find the proof in the elevations of all mansions from the Lion's Sneeze till the Claw.
12. Oh, polite pilot! Crux has many experienced measurements,
13. but I mention only what is used and useful to the honorable pilots.
14. The first measurement is that of α Crucis which is separated from the sea and γ Crucis
15. by four fingers, at the headland of al-Ḥadd. The Angle of the Barker indicates it.
16. After that, if Spica culminate, and δ and β crucis are in horizontality, oh! reliable man,
17. their measurement would be at the headland of al-Ḥadd five fingers clearly and both decrease when Polaris increases.
18. It still can be measured, use it all of you, it has no comparable Star in the Hedjaz.
19. I invented all this by a gift from the Obeyed King (God);
20. Nobody can reach all that but the intelligent and clever pilot.

25. [Polaris Ascent and Descent]

21. The difference between the greatest and smallest elevations of Polaris is four finger. I am giving the exact number.
22. So, it turns aside towards aṭ-Ṭāīr no more no less.
23. The ancient pilots never mentioned six fingers for the Pourers. And I don't say that.
24. The greatest deviation from its initial position to the east occurs when Shaula's mansion culminates, oh, my authenticator!
25. The greatest altitude or elevation takes place exactly when the Pourers' mansion culminates,
26. because it is always moving. γ Cephei has also the same performance as Polaris.
27. Polaris greatest deviation to the west appears when Orion's Head's mansion culminates, my beloved!

Chapter IV

On the measurement of Stars altitude, its time and months, its reliability and abstention in accordance with the Nuruz computation. The ascent and descent of Polaris and of the Guards.

Informations related to those subjects.

22. [The Fundamental Measurement]

1. When 20 days or less have gone from the Nuruz,
2. the fundamental measurement can be correctly obtained. And this measurement is true and renowned in the art of navigation.
3. When half of the month of December has gone,
4. then the Lion's Tail mansion culminates and it is the best known mansion;
5. the Calves are then in horizontality, at the east point, and Rigel sets.
6. At that time, Polaris does not have any elevation

23. [Measurement of Vega and Sirius]

7. Measure Vega and Sirius in that period accurately,
8. and do it till the 190th day of the Nuruz, as I have indicated before.

24. [Measurement of Crux]

9. Measure Crux, except in that occultation, when the Barker's mansion culminates

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21. [Prime of different nuruz]

29. The prime of the Persian calendar is the first day of the month Farwardin Mah.
30. You should know that the 25th day of the coptic month Hatur is the prime
31. of the Arabian and Indian Nuruz, and others, my friend! But let it be understood, may God give you my intelligence,
32. that we still have the Imperial Nuruz which begins when the sun enters the sign of the Cancer.
33. But the catalog makers and the astronomers consider that the Nuruz begins exactly,
34. my friend, on the 21st of November, one of the Byzantine months.
35. The Scorpion's Crown Mansion rises on the 19th of the same month and may be seen at dawn.
36. We ourselves consider that the Scorpion's Crown mansion rises at dawn on the 13th of November.
37. These are absolute rules in reckonning the prime on the basis of the Byzantine year.
38. Oh, Catalog maker! I urge you in the name of GOD, if the sphere deviates in the future, correct what you doubt about.
39. And don't change the other sciences at the same time you modify the Astronomy and the constellations.
40. This poem is the compendium of the experienced man; nobody doubt about it among all Arabs

11. so that half of the mansions appear during the day and can not be seen at night;
12. and the pilot use at night the other half in his courses, but he misses to observe
13. two mansions, all the times, because of the bright sun when it rises.
14. So, young man, the net number of mansions observable at night in all times, is twelve. Remember it.
15. I will mention all the mansions from the prime of the Nuruz till its end,
16. and the circumpolar stars that never set or rise.

19. [The Arab Nuruz]

17. The prime of the Arab Nuruz coincide with the setting of the Pleiades at dawn.
18. Then the rising mansion at dawn is the Scorpion's Crown mansion, and the culminating one is the noble Lion's Forehead.
19. The Luckiest Mansion is culminating underneath; you can not see it; leave it after five days.
20. Calculate the occultation of each mansion and count for its appearance a period of
21. four plus nine days. Nobody disagrees on this point.
22. So all the twenty eight mansions have sixty
23. days plus three hundred and four days.
24. Oh, expert in occultations! This year admit no doubt and no discussion.

20. [The Lunar year and the Solar year]

25. The precedent year is an Arabian calendar, established by the astronomers in old times.
26. The Lunar year has a number of days smaller than that of the Solar year.
27. The calendar of the Copts, Persians and Byzantines have one day in surplus.
28. This difference is least. The experienced pilot will not doubt it.

Chapter III

Rules of the measurement of stars altitude. The Arabian and Imperial Nuruz. The Calendars of the Arabs, Byzantines, Copts and Persians, and the computation of their Golden numbers or primes by mathematical means and by the rising and setting mansions at dawn, in accordance with the Nuruz.

17. [The Measurement lasts six months]

1. If you like to reckon the elevation of a star, listen to the discourse of an intelligent trusty.
2. In the suspension of travels or their performance periods, or in any other time, don't discuss with me,
3. if you observe, young man, a star height or a culminating star becoming horizontal,
4 you should know that its measurement begins at dawn. If the star comes to the west, take another one.
5 Leave it six months till you see its measurement coming
6. at dawn. Then you know it is culminating. Measure it six months, oh, man!
7. from the beginning of the night till its end. I advise you to do it, my friend.

18. [The Mansions of the Moon and the measurement]

8. Every year has twelve months. All peoples determined this number.
9. The days of the year in lunar computation, are three hundreds and fifty four.
10 They represent the time taken by the twenty eight mansions to complete one revolution. Every mansion has a setting in that time.

42. If the bow of the ship is towards the Pleiades, her stern is towards Orion's Belt, my intrepid man.
43. The two Stars are opposite to each other, and Altair is the lonely star between them,
44. because it has no opposite star and its position is just between the northern and southern hemisphere.
45. Other stars may rise at his rising point, my companion,
46. since it is the best known and has been considered the base of that construction.
47. Its zams are said to be forty and have been fixed before us
48. for the exactness of the computation. The principle in this is the calculation from the poles,
49. because they are the basis of these Zams and the signs of the direction of the prayer in Islam.

15. [Exactness of the Poles Computation]

50. Oh, my brother! It is a secret computation. The intelligent man alone thinks of it.
51. It is the most correct calculation in the science of the sea, according to the men of experience.
52. These stars and rhumbs are approximate in the View of the Arabs, oh, pilot!
53. Don't sail on them by human eye in a narrow or dangerous place.

16. [The fingers of the circle, the number of the mansions and the rhumbs]

54. The renowned fingers of the rhumbs and Mansions circle
55. are counted seventy plus seventy plus seventy plus four plus ten.
56. The total number of rhumbs is considered two times sixteen; test it.
57. That means an excess of four on the number of the mansions.
58. When you see the stern of the ship directed toward a star, adjust her bow toward the selected
59. opposite star. Understand what I mean and know in which rhumb Polaris is.
60. Needless to make my Poem in rağaz longer. This computation appears very clear.

25. as Betelgeuse and Rigel are on either side of Orion's Belt according to the rules [of Astonomy].
26. To human eye, whatever rhumbs are nearer to the celestial poles increase in vision and in calculation.
27. And whatever rhumbs are nearer to Altair are seen narrower by the intelligent pilots.
28. All the rhumbs are equal in the compass. This is the computation of rhumbs, without any fault.

13. [The Zams between the rhumbs]

29. The tiriffa between Capella's rising rhumb and the rhumb west
30. is two zams for every two consecutive rhumbs. That was decided since the east and west were created.
31. By observation, every star's rhumb has five zams from the Capella's rhumb to that of Altair.
32. So, it is for the renowned Mirzam and Aldebaran, because they are two halves.
33. And the Sting rhumb is like that of Capella when compared, my brothers
34. And as the Vega rhumb. The Scorpion's Crown rhumb is one zam less. Refer to my saying.
35. The Poles finger equal eight zams, it is fixed for all the world, and exact.
36. The finger increases by two zams, if you deviate towards east or west. Calculate on that basis.

14. [The opposite rhumbs]

37. The Sillibar is opposite to the Guards and the Stretcher to Canopus for sure.
38. The two Asses are opposite to Cassiopeia and are omitted in calculation, my companions,
39. because the Stretcher and Canopus are close to them. This argument is clear.
40. Capella is opposite to the Sting of the Scorpion on the square points of the rhumbs circle.
41. The Scorpions Heart and Crown are opposite to Vega; and Sirius to Arcturus without discussion.

9. I mean the foremost Water Pourer and the Hindermost ones. Let it be understood. Then comes the Whale's Belly, be informed.

10. [The Mansions Motion]

10. These mansions move with the rotating celestial sphere.
11. So, when a mansion sets, an opposite mansion rises at the same time.
12. When a mansion culminates in the north, another one culminates in the south, according to the astronomers.
13. The pilot should know the rising mansions and the setting ones and the fourth star.

11. [Names of the stars of the compass Rhumbs]

14. Henceforth, you should know the rhumbs round the ship, my brothers.
15. They are Polaris, the Guards, the Great Bear, Cassiopeia, the Goat (capella). Listen to me.
16. Then the renowned Vega, Arcturus, the Pleiades and the Divider of the Spheres (the Eagle).
17. Next come Orion's Belt, then you see Sirius and the Scorpion Crown and Shaula (the sting).
18. The two Asses (α β centauri) and the bright Canopus which is well known and southerner.
19. The Oath Breaker, near the South Pole, is mentionned in the books of all nations
20. Those were the rising points. No need to give the setting ones for the clever pilot.
21. The easy signs suffice the free pilot if he is intelligent.

12. [Names of the Stars of the half-Rhumbs]

22. The positions of Aldebaran and Mirzam are near Altaïr, young man!
23. Aldebaran is in the northern hemisphere; mirzam in the southern. Intelligent men measured them before us.
24. The expert in the art of navigation believes they are both in the same rhumb,

Chpater Two
On the mansions of the moon and the rhumbs of the Arabian compass; their use in navigation, their symetric points, their fingers, other than those of the teriffat the knowledge of the terriffa. Informations related to those subjects. God's knowledge is better than ours.

8. [Northern Mansions of the Moon]

1. First, I enumerate, on your request, the northern mansions of the Moon, which should be known.
2. They are the Ram's Horns, the Ram's Belly, the Pleiades ; then follows the Bull's Eye,
3. then come Orion's Head, Orion's left Shoulder, the Lion's Arm, the Lion's Sneeze, the Lion's Eye,
4. the Lion's Forehead, the Lion's Neck, the Lion's Tail. there is not a single deviation in my description.
5. Then, follow the Barker and Spica, at the end of the good northern mansions of the Moon.

9. [The Southern Mansions of the Moon]

6. Oh, my friend! The first three mansions of the southern ones are the Cover, the Claw, and the Scorpion's Crown;
7. the Scorpion's Heart, Shaula (the Sting), the Ostriches; then the Vacant Space rises always.
8. Then the Four Lucky Stars, the Two Water Pourers on whose shape the sail of the ship were tailored for a very long time.

43. These ninety days form the closing period of the sea. Anyone who travels in it shall be afflicted.
44. He shall suffer from loneliness, regret, strong upsetting and pain.
45. But, in case of necessity, many ships sail during that period, and many times the idiot crossed the sea in it and exposed himself to danger!
46. The clever pilot should not decide to sail during the forty days preceding the « Terima »,
47. because they have heavy rains that stop the bold pilot.

7. [Precautions before the travel]

48. Oh, Pilot! if you travel in these forty days or in any other period, don't go ahead
49. unless you are well equipped and have determined the courses of your ship — you can not overcome the sea just by looking at it.
50. Your equipment should include the «compass.» of the course, the helm, the card of the ship and the mariners.
51. Be sure your instruments are good before you travel, such as the compass, or the instrument of measurement, or the magnetic stone (needle),
52. the soundline, the lamp, the Rutter of the sea. If you have travelled, many people have gone on a pilgrimage.
53. The pilot should stay humble when he becomes highly and completely skilled.
54. Be carefull when you sit to take the measurement, because the way you sit is essential for accuracy.
55. The requirements of the mastership are numerous. But I start with the important ones.

25. because the fishes could have carried it to the high sea, not near the shore.
26. Besides, the Lazzaq caught by the fishermen is a sign known by intelligent people.
27. The ancient pilots, venerable and reliable as they are, agreed upon the correctness of the sight of snakes,
28. from latitude Polaris eleven fingers to latitude Polaris five fingers, especially in India, May God accept me as your ransom!
29. The long fish called mariza, seen sometimes in the sea, should not be considered as a sign, if it is dead,
30. because the Almighty alone knows its mystery.
31. The color of the water of the sea above the black muds changes to a large extent, because of the rains and the currents,
32. so that the water becomes illuminated; the clever pilot does not miss this sight.
33. Be careful when the change of color is accompanied by surf.
34. Oh, pilot! Do according to your own experience in all what you see.
35. Don't worry and follow your own experience for the landmarks and mountains.
36. Take from my book the true and correct landmarks only.
37. But not as Ǧūzarat in mount Ǧulnār, and the land of Mukran in Hašt Lar.

6. [Knowledge needed by the pilots]

38. You shall know the winds, the closing and the opening of the sea
39. The closing lasts a quarter of a year, or a period of ninety days.
40. The ship must stop sailing from the rising of the mansion al-Debaran (a Tauri) at dawn,
41. till the rising of the mansions (**δ υ** Leonis) at dawn also; Afterwords, she can go along the coast and in the high sea.
42. This means from the beginning of the 200^{th} day of the Nuruz till the beginning of the 290^{th} day.

9. my composition in verse will dispense you from referring to the Rutters of the sea written in prose,
10. provided its reading is done under the supervision of a teacher, when the reader does not handle the ship by himself,
11. because it contains, oh, my brother! symbolic thinking, which is considered as a lack of knowledge by the ignorant.
12. Therefore, I advise you to take a firm position in the meeting of weak pilots.
13. Don't argue with any person indiscriminately, but deal with your equals and with the bold ones.
14. Some of the problems of the sea are empty talks and can be understood by a stupid.
15. Whoever misunderstands an obscure problem, retain it well,
16. especially if it is an enigma without any approved and assorted origin.

5. **[Signs needed by the pilots]**

17. Anyone who inquires about the sailing distance, or the direction of the course with every defect in it,
18. or the reliable measurement, or the star height, or the port of departure experienced by the ships,
19 or any star according to the Nuruz computation, or the period of voyage in the opinion of clever seamen,
20. or the experienced horizontalities, shall find the right information in the following explanation.

* * *

21. Here is what I say about the mud, the snakes, the sea birds, the fishes and the herbs.
22. Don't rely upon the signs of approaching the land, unless you have experienced them, or have verified what has been described to you.
23. But the sounding and the al-Lazzaq are correct signs everywhere.
24. The Lazzaq may be a good sign or a false one, when it shows some yellow spots,

Chapter one

Thanking and praising the Masters and giving the beneficial signs necessary to the pilots, such as the mud, the herbs, the soundline, the fish Mariza and the likes.

3. [In the name of God and thanks be to Him]

IN THE NAME OF GOD,THE MERCIFUL AND BOUNTIFUL

1. Thanks be to the Creator, the Magnificent, the Victorious, the Unique without any resemblance to Him.
2. Thanks be to Him for converting me to the religious faith of the Prophet of the Adnanite tribe
3. and for leading me to the poems of the pilot ibn Kahlan and of the two pilots Sahl and al-Layṯ son of Šāḏān.
4. These pilots are intelligent men who reformed the Art of Navigation. May God embelish the paradise for them!
5. I beg God to forgive me for what my tongue diminishes or adds.

4. [Presentation of the Poem]

6. Oh, Navigation's apprentice! I offer you this poem — and it is an excellent one —
7. dealing with the Science of the sea and Astronomy and mathematical calculations, and with the findings used in doing the right things.
8. If you are diligent in your learning and talk about it with your instructor everyday,

ever and devolved to those who are not experts in it. That is why I was urged to compose my Compendium. It includes strange terms and divine sayings, by the will of God the Supreme, which I hope will give satisfaction to the intelligent pilots when they meet any difficulty or suffer any damage.

To compose my Poem, I consulted the current poems in Rağaz written in my own time, and the detailed Rutters of the sea; but all of them are full of hesitations and repetitions. My Poem will content everybody, and preserve the sailor and deliver him from danger.

On purpose, my poem is abridged, and the superfluous ideas are omitted from the abundant materiel; otherwise, it would be tedious to read, and the busy pilot wouldn't have enough time to go over it. May God have mercy towards those who forgive me for any mistake they might find in it and correct it.

I titled my poem in rağaz: « THE SCIENCE OF THE SEAS, A COMPENDIUM OF BASIC ELEMENTS ». It consists of eleven chapters. The composer, the poor servitor of God, the avower of its incapacity and retardation, the least among the servitors of God, who is in absolute need of His mercy, the last of his ancestors, the reference of his successors, is the renowned master AḤMAD IBN MĀĞID IBN MUḤAMMAD IBN OMAR IBN FADL IBN DUWAIK IBN 'ABĪ ar-RAKĀĪB an-NAĞDĪ, may God forgive him and forgive all of his forefathers.

Hereafter are the chapters of the poem in rağaz.

Al-Ḫāwiya

IN THE NAME OF GOD, THE MERCIFUL AND BOUNTIFUL
[May God help me]

1. [Thanks be to God)

Thanks be to God for my good fortune, for inspiring me the truth and its achievement, for guiding me in the sea and its routes, and for giving me assistance when I head my ship east or west. Thanks be to Him for the knowledge imparted to me and embracing the serene and pleasant sea, and for the eloquence which amazes the bright elocutionist. On the Illiterate Prophet, on his noble family, his companions and supporters, be God's blessings and peace!

2. [The Poem is composed to guide the navigators and conserve the science of the sea]

Hence, one should choose modesty with its scarcity, and the simple and accurate wording. The composition of such a poem in Rağaz requires sharp intellectual insights and discloses a secret, kept hidden for ages. In writing it, I obeyed the order of the King of the Angels, the Ruler of the Universe and its Spheres, because He said (in the Holy Coran), may He be exalted, He always say the truth : « They guide themselves by the signs and by the stars ». So, my outlooks became true, and I realized in mind and in fact, that my Compendium will be the guide of the navigators after God, may He be praised.

I was afraid the ignorance might spread out among the creatures of God, and the science of the sea could be lost for

Chapter X

On a knowledge that exempts from horizontalities and from sailing distances in zams. Citing requirements of the pilots, such as the tailoring of the sail and navigation in the high seas and the ocean extending between the Sudan coast India and China. God know the truth.

Chapter XI

A calendar that gives the hours and their beginning, the seven planets, the zams in the open sea, the stars, the sun, the moon, the binary star and its passage by the rhumbs, the signs of the heavy rains, the date of the poem in accordance with the astronomic calculations. God know the truth.

EPILOGUE

Chapter VIII

The knowledge of the sailing Distances between the coast of Arabia and the coast of India, from Polaris 5 fingers to Polaris 11 fingers. Distances in Zams at four heads and related informations, that are the basis of all distances in the sea. God know the truth.

Chapter IX

The knowledge of the measurement of Polaris, the Guards and the Great Bear, when β Leonis (Denebola) is culminating. It is called the fundamental measurement on all famous heads of the coasts of the Ocean extending to the north and known as the sea of India, Siam, Arabia and as-Sawāḥil. God know the truth.

Chapter V

The sailing directions of South Arabia, Hedjaz, Siam, The Berber's Gulf, Somaliland, Rīm, Zanǧ, Qumr Islands, till the end of Sudan and Kanem, in accordance with astronimical calculations and written documents.

Chapter VI

The sailing directions of Persia, India, Šolian, an-Nāt, al-Bunǧ, Siam, till the windward lands such as Beliton, and al-Maharāǧe, al-Gūr, in accordance with true infromations.

Chapter VII

Sailing Directions and Departure points of the islands Maharāǧe, Sumatra, Fāl, Qumr, Yemen, Coasts of Abyssinia, Somaliland, Aṭwāḥ, Mukrān, and lands in between. Informations related to those subjects, in accordance with oral sayings and written documents. God know the truth.

Chapter III

Rules of the measurement of stars altitude. The Arabian and imperial Nuruz. The Calandars of the Arabs, Byzantines, Copts and Persians, and the computation of their Golden numbers or primes by mathematical means and by the rising and setting mansions at dawn, in accordance with the Nuruz.

Chapter IV

On the measurement of Stars altitude, its time and months, its realiability and abstention in accordance with the Nuruz computation the ascent and descent of polaris and of the Guards. Informations related to those subjects.

Content of the Ḥāwiya

PROLOGUE

Chapter one
Thanking and praising the Masters and giving the benefitable signs necessary to the pilots, such as the mud, the herbs, the soundline, the fish Mariza and the likes.

Chapter Two
On the mansions of the moon and the rhumbs of the arabian compass; their use in navigation, their symetric points, their fingers, other than those of the teriffat, the knowledge of the Teriffa. Informations related to those subjects. God's knowledge is better than ours.

meter in such poems is called Rağaz, which is very close to prose. The remaining wording of the title is most important: it shows the real subject: the principles of the science of the seas. Later on, the composer will explain them under eleven topics and a prologue.

NAVIGATION IN THE INDIAN OCENAN... being a translation of a late prose work of Ibn Māğid.

In 1836, Baron Von Hammer translated the Turkish Muḥit into German, and James Prinsep translated the german translation into English: both translations were published in the Journal of the Asiatic Society of Bengal in the same year.

In 1970, 1971 and 1973, an arabic edition of most of the navigational texts has been established for the first time on the basis of six arabic manuscripts out of eight, known throughout the world, and on the basis of the original copy of the Muhit written by the author (autograph). It was published by the Arabic Academy and the French Institute in Damascus.'Aḥmad bin Māğid and Suleyman Mahari wrote all these texts, which are not the only ones in Arabic literature. Some ancient « lions of the seas » made many accounts of their nautical knowledge. Also, Ibn Fāṭima is known to have turned round Africa before the Portugese and written a treaty on navigation.

B- The « SCIENCE OF THE SEAS »

The oldest among the above texts[1] is dated 1461/866H. It is called « **The 'science of the Seas, a Compendium of Basic Elements** », or, litterally « An Abridged Poem on the Principles of the Science of the Seas ». Both translations of the title are equivalent and give a rough idea about the whole matter dealt with.

But this title should be explained. First, the word « abridged » would, usually, imply a reduction in scope, with retention of the essential elements and a relative completeness in the subject. In fact, there is no reduction in scope, and the knowledge is set forth in details. This phrasing is a settled practice to insinuate the extensive learning of the composer in a grandiloquent style. Besides the abridged poem has 1082 verses. Second, the word « poem » is more interesting. It means merely a composition in verse. And this is it. Then, why the composition is in verses ? The arabian sailors say: every little bit of rhythm impresses the mind and the ears and makes it easier to memorize and to remember, what is put in poetry. Anyway, the

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(1) Al-Qāfiyya, written in 865 H/1460 A.D., is the oldest in fact.

Introduction

A- The Arabic Navigational Texts

The Arạb navigators wrote, in Arabic, in the 15th century, a genuine literature on the Art and Science of Navigation in the Indian Ocean and in its branches, the Arabian Gulf and the Red Sea. Their original works, in prose or in poetry, were reproduced by scribes or copiers of manuscripts, and sold to the pilots of Arab and Foreign countries.

The high value of these navigational texts has long been recognised. A first translation of some of them into Turkish, called « THE MUḤĪT » - the Ocean -, was made by the Turkish Admiral of the Fleet, Sidi Ali bin Ḥusayn, as soon as 1554 A.D/ 962 H.; and a second one, into Ordou dated 1673 (1084 H.), is said to be in the Library of the Bombay Mosque in India.

They attracted the attention of the european scholars in England, France, Holland, Germany, Austria, Spain, Portugal and United States. Gabriel Ferrand edited in Paris, in photocopy, the two arabic manuscripts of Paris (Bibliothèque Nationale n° 2292 and 2559) in 1921-1923, 1925 and 1928. T.A. Chumovsky edited, in photocopy too, and translated into Russian, in 1957, the three poems of the arabic manuscript of Leningrad. G.R. Tibbetts, edited in 1971, THE ARAB

These works have a minor value in comparison of his poems, although they are easier to read and possibly to understand. In fact, they repeat more or less what was written before them in poetry.

Ibn Māǧid composed 41 nautical poems, too.They are called « 'Urǧūza » and, sometimes « Qaṣīda ». Out of them, 17 are lost, or, let us say, not found till now. The remaining 24 contain 4603 verses. They constitute a corpus, or, rather, an organic and coherent treatise, in poetry, on Arab Navigation, in the 15th century.

*The most important of them, the second in date and the best of all Ibn Māǧid's works, either in verses or in prose, is « **Ḥāwiyatu l-'Iḫtiṣār fi 'Uṣūl ʿIlm al-Biḥār** » or the Science of the Seas, a Compendium of basic elements. Its title implies that it is a comprehensive writing on navigation. This is true: all the subsequent poems deal with subtle and copious details, forcibly not included in the previous generalization. Al-Ḥāwiya forms then, in the conception of its composer, an overall view on the matter; and every late poem, a new elucidation, added to develop and clarify an individual idea stated briefly in the initial survey. Thus, the author enclosed in his verses his knowledge about the seas and his « theories » on navigation. Therefore, in strict logic, any analysis of his ideas should begin by the examination of his nautical « **'Urǧūzât** », and first of all,* **al-Ḥāwiya.**

PREFACE

Ahmad bin Māğid was, in the 15th century, a great navigator of the Indian Ocean and its branches, the Red Sea and the Arabian Gulf. He nerver accepted to be called a ***Pilot*** *— Rubban —, or a* ***Master — Muallim — or a Lion of the sea — Layṯ or intrepid pilot. He was pleased to name himself « ar-Ra'īs al-Muqaddam »***[1]*, that is the Captain-Major in command of the ship, or* ***« al-Muṣannif'Aḥmad »***[2]*, i.e. the author 'Aḥmad. No doubt, he was very proud of himself, a high skilled expert in his art and the first and prominent* ***« theorizer »*** *of his time in the field of Arab Astronomical Navigation in the Indian Ocean. His Genius was by far superior to the talent of Sulayman al-Mahari who had been an intelligent copier of his writings.*

He wrote 5 works in prose: « ***al-Mull*** *» or the survey of the shores-a true rutter-,* ***« Kitāb al-Fawā'id fī 'Uṣūl ʿIlm al-Baḥr wal-Qawāʿid »****, or the Book of commentaries on the Principles and Rules of the Science of the sea-a lost manuscript-,* ***« [Muḫtaṣar] Kitāb al-Fawā'id... »*** *or The Epitome of the Book of commentaries...*[3]*,* ***« al-Fuṣūl »*** *or the Chapters, and* ***« Šarḥ ad-Ḏahabiyya »*** *or the Commentary of the* ***« Golden Poem ».***

(1) The **« Poem of the Substitutes »**, verse 2.

(2) The **« Golden Poem »**, verse 176.

(3) This Epitome is called usually « Kitāb al-Fawā'id... » by the Scholars.



AL-ḤĀWIYA

THE SCIENCE OF THE SEAS
A COMPENDIUM OF BASIC ELEMENTS

(Ḥāwiyatu-l-Iḥtiṣār fī 'Uṣūl 'Ilm al-Biḥār)

By

AḤMAD BIN MĀǦID

(825 H./1421 A.D. -906 H./1500 A.D.)

Translated and Edited

By

IBRAHIM KHOURY
1989

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99. In fact this sailing season was told about in verse 520.
100. *Al-Kamāl*: al-kamāl.

The expression «fil-ğalsati bil-kamāli» means in the sitting position to measure with al-kamāl. Ğalasa bil-kamāl stands literally for to sit with al-kamāl. In Arabic, the preposition «bi» adds various nuances to the original wording, and denotes the existence of an ellipsis. In this instance, the omission consists of one word that can be easily supplied to make the clause seem more complete: *ğalasa yaqīsu bil-kamāl.* Thus, «fil-ğalsiti bil-kamāli» becomes «fī ğalsiti-l-qiyāsi bil-kamāli». Many examples of this kind may be found in the detailed grammars of Arabic or even in Lisān al-'Arab. This is a hypothesis. This expression may be understood also: when sitting to measure in a perfect way.

The second hemistich has been emended: *muğmal* into *mamlaka* and *'ilayhi* into *lahu.*

86. *Baršāt*: ships

Plural of *barš*: ship. Cf. Rawḥ ar-ruh of Ibn Muṭahhar, f. 11 v, 1. 2-3. In the original, it is *aš-šāšāt*, emended into baršāt.

87. *Taqawuman*: bartering

Taqāwama means to valuate wages in goods instead of cash: here, the copper is exchanged against silver: a kind of truck.

88. *Taḫt al-malik*: residence of the king

It is a persian expression meaning the throne or the seat of a king: figuratively, the residence of the king, his town or capital.

89. *Ma'din*: center

'Adana: dwell. *Al-ma'din*: a place where one stays in summer and in winter, that is all the times. *Ma'din an-nuḍār*: the place or center of gold.

90. *Liḏaka l-ma'din*: to that center

In the original, *kadāka* has been emended into *liḏaka.*

91. *Muḥamarra:* white

«Red» means white when speaking of human races.

92. *Ḫabt*: flat land

93. *Aštāt*: isolated, lonely

Plural of *šatt*, denoting solitary elephants, isolated or lonely. In the photocopy, *asnan* is emended to *aštāt.*

94. *Al-'aṭwāḥ*: wilderness

Ṭāha: to be lost. *'Aṭwāh:* places where ships get lost. It has the same meaning as *aṭ-Ṭawa'ih*: places of destruction.

95. The assonance of the rhyme is missing in the second hemistich. We completed the omission: it is one word (ṣāhibī) and does not influence any meaning.

96. There is no contradiction between the altitude of Damūtī in verse 642 (eleven fingers: Ibn Māğid asks the pilot to take eleven to be at a distance of twenty zams from Wamīzī) and its real elevation in verse 645 (ten fingers and a half).

97. *Ḥāya*: breeze.

Cf. note 41. It means simple current of air here; breeze

98. *Mawğatu š-šalīb*: wave of the cross.

Ibn Māğid believes that the wave of the cross is one of his inventions: cf. al-Fawā'id, p. 191, 1. 6-12. He means by it a sea agitated all the times in the southern climates because of constant winds there.

74. *Mafāriḍ*: indentations

Mafāriḍ is the plural of *mafraḍ*, denoting creeks or bays or indentations which might be used as anchorages. In fact, *al-furḍa* is more classical. But the two terms are used.

75. *'Amriya*: narrow submerged embankments

'Amriya is the plural of *mirā'*. They are made of peebles or sands, at a depth of 5 to 8 stretched arms.

76. *'Urūq*: ridges

It is the plural of *'irq*, meaning an elongated elevation on the bottom of the sea.

77. *Suwālah*: shore line

Sāla means among other things to extend: *sa'il al-'aṭrāf:* with extending ends. *Suwāl*: extension, lengthening, then shoreline.

78. *Al-bald:* sounding line

A cord weighed at its end, when thrown into the water, it reaches the bottom and measures the depth.

79. *Šāhara*: occurring monthly

It is a verb denoting the alternate rising and falling of the water suface every month.

80. *Saqā*: to flow (in the tide)

This meaning is given in Dalīl al-Muḥtār, p.294.

81. *Al-'aqrabī*: SE wind

Blowing from the scorpion rhumb

82. *Ḏallala*: to follow a fair road

In fact, *ḏallala stands for sailing by an easy course gone over by other pilots.*

83. *Manā*: to encounter

The verb *manā* means to be struck by, to meet to encounter.

84. *'Ilayhim*: stay away from

In verse 533, a full stop should be put after *biya*, in the second hemistich. Then, a new clause would begin with *'ilayhim* which was explained by Sibawayhī to have this signification. Other understandings are possible depending upon the antecedents adopted for the pronouns in that verse.

85. *Tālī*: neighbor

Kabīr: large

Nahara: to be in the opposite side of, next to

59. *Qitā'*: submerged rocks

Plural of *qit'a*: underwater isolated rocks. Another plural; *qit'āt*.

60. *Wasaḫ*: dirt

Plural: *awsāḫ*. Another derivative: *mūsiḫa* in verse 336. Obstacles that block navigation.

61. *Wuṣūl ḫāfiya*: submerged rocky crests

Plural of wašl. Another Plural: *'awsāl*: linked rocky crests.

62. *Bab*: inlet

Entrance in a bar or in spit: inlet.

63. *Niẓāf*: clear

Nukd: lack of water

Nizāf, plural of *naẓīf, contrary of dirty. Nukd*: little water.

64. *Farš*: thick vegetation

65. *Ẓahra*: emergent rocks

Ẓahra: rock above the level of the water. Plural: ẓahrāt, ẓihār.

66. *Ša'b*: far away

It is *ša'ab* in verse 366 for the rhythm of the versification.

67. *Maṭraḏ* means the clear route. Here the water course.

68. *Ašrāk*: roads

In the original, it is *ašbāk*, emended to *ašrāk*, i.e., terrestrial roads.

69. *Al-Ḫašab:* ships

Plural of ḫasaba, meaning ship

70. *'Arqāq*: shallows

Plural of *riqq*, standing for places in the sea having little depth.

71. *Ġawl*: much earth, mud

The rhythm of the verse does not allow wa *ḥwli* - which has no meaning-nor *wuḥūli* is permitted because it has no connection with the precedent word. That is why the emendation was wa *ġawli*..

72. *Al-ġalaq*: closed season

Cf. note 17.

73. *Maṭrad*: course

Cf. note 67, but maṭrad in verse 429 is the well known head in Yemen.

the south wind *'azyab* exclusively, because it is violent, agitates the sea, makes it black and put it upside down.

50 *Šuhūd:* witnesses, rising stars

Plural of *sāhid,* who sees by his won eyes, present, and, speaking of stars, rising stars. Cf. also verse 295.

51. The same altitude is given in verse 176.

52. *Qāma:* to culminate.

Qâma fawqa l-quṭb: to be vertical above the North Pole: to culminate.

53. *Qiyās nafis or ḍayyiq:* excessive or deficient measurement

Cf. note 25. Same for *nafas* in verse 467 and nafis in verse 475.

54. *Qiyās al-'aṣl:* fundamental measurement

Measurement of Polaris when Denebola culminates, or the Guards, or the handle of the plough.

55. *Al-Kaws:* W S-W wind

Said to be the wind opposite to *al-'Azyab* in al-Qāmūs. It is reported in Tāğ al-'Arūs that: «The indian pilots travel to Yemen by the *Kaws,* they come back to India by *al-'azyab*».

The Kaws is defined by Ibn Māğid in al-Fawāi'd:, p. 157, 1. 10-11: «The winds of the setting of Sirius are called al-Kaws and al-marḥān», that is the WSW.

56. *Marba' ğanūbī 'inhasā*: little southern lookout

The second hemistich has been emended: wa *kullima rabbi...: kulli* is deleted in the original by a clear mark, the remaining «ma rabbi» is corrected into *marba'*: lookout. The verb' *inḥasa* means to disdain, that is without importance, little.

57. *Sahm*: arrow

Al-*Sahm* means 10 fingers as shown in verses 290, 291, at least as defined by Ibn Māğid.

58. Tīrīma: tirimah

It is the fourth month of the persian calendar.

Ibn Māğid says in al-Fawā'id, p. 324, 1. 9-10: «They travel in the tīrīma, I mean tīrīma the quarter of an-nuruz, which is the first hundred days of nuruz».

44. *Šawār:* soft wind

Pure Arabic, mentioned in aṣ-Ṣiḥāḥ and Tāğ ak-ʿArūs. Explained in al-Fawā'id, p. 330, l. 6-7: « As to the weak wind, when it is the end of a current of monsoon or the *šawār..* ». *In verse 684 of as-Sufaliyya, it is put in antithesis with ġāmiz:* the wind that presses or pushes the sail, derivated from *ġamaza,* that is to press.

45. *Ṭaḥla:* mudbank, or sandbank

Derivated from ṭaḥala l-mā'u: the water smells because of the putrefaction of organic matter in it.

The name is *ṭaḥla* or *ṭaḥlāt,* meaning an underwater elevation of sand or mud as said in al-Fawā'id, p. 367, 1.4 (depth; 3 to 4 stretched arms) and in Dalīl al-Muḥtār p. 249.

46. *Šiʿb:* reef

It means a chain of rocks underwater, at its surface or above its level. Plural: šiʿbān; šiʿāb.

47. *Ğawš yamīn:* right bow

Cf. note 16.

48. *Ğazara:* to ebb

Maḏara: to split into crenelations

The first hemistich of the verse 229 must be corrected. It admits two emendations. If the mis-spelling of the verb *yağzuru* is corrected into *yagzuru* (to recede, to ebb), we are compelled to emend *al-barr nto al-baḥr,* and then, the translation would be: « the sea ebbs from the land of Barāwa till the end of Sofala ». In case the mis-spelling of the original verb yağzuru is made yamḏuru (to split into crenulations or indeṇtations, to be very irregular), and the rest is left as it is, then we have the translation we adopted.

49. *Al-Azyab:* south wind or south-east

In aṣ-Ṣiḥāḥ, *al-'azyab* is the wind blowing between east and south. In al-Qāmūs, it is either a south or a south-east wind. Tāğ al-ʿArūs repeats al-Qāmūs with detailed references. In it and in Lisān al-'Arab, we have this interesting explanation: « The yemenites and those who travel from Gudda to Aden by sea, call

It seems that al-Balīġa is the rare urğuza, since it is the only poem explaining as-Simākayn and Canopus exclusively, and Ibn Māğid says in the Jewel of the Jewels he wouldn't repeat the measurement of as-Simākayn.

37. *Ḏubbān:* four fingers

It is defined by Ibn Māğid in al-Fawā'id, p. 26, 1.11 to p. 27, 1.1; « Every finger equals 1/4[th] of Ḏubbān and every ḏubbān equals four fingers ».

38. *Istaqalla:* culminate

Istaqalla means to reach the highest position in the heavens, when speaking of a star or a mansion.

39. *Al-Banāt:* the handle of the Plough

It is short for *Banāt Na'š.* In astronomy, it stands for ε ζ η UMi or UMa. In navigation, it is used for ε ζ UMa only. Thus, the handle of the plough in as-Sufaliyya refers to the Great Bear Constellation exclusively.

40. *Aš-šanīn:* intermittent rains

Aš-šağīn in the original is wrong. It should be emended into aš-šanīn: intermittent rains.

41. *Ḥāyāt:* air currents of the monsoon

It should be *ḥāyât aṭ-ṭūfān, depicted in al-Fawā'id, p. 336, 1. 1-8, that is the air currents of the monsoon. It is violent as said in al-Ḥāwiya. It is the plural of ḥāya,* indirectly defined as violent wind in al-Fawā'd, p. 330, 1.6-7.

42. *Fišt:* shoal

It means an elongated underwater elevation of soft rocks. it is still used in Kuwait.

43. *Aktāf:* high crenulations

Ḏīr'ān: spits, sometimes bars

The original spelling, *akdāf,* should be emended into *aktāf:* high crenulations of the main shoreline; projecting spits; *ḏir'ān,* which are embankments with one end attached to the mainland and the other terminating in open water.

stands for to set down in writing the time of an event without any interpretation, to record; and mu'arriḫ: chronicler, recorder.

31. *Al-Māriza:* mariza

It is a kind of fish, considered by the sailors as a sign of the approaching land.

32. *Ad-Damīrī:* (742 H/1341 A.D. — 808 H/1405 A.D.)

He is Muḥammad bin Mūsā bin 'Isā bin 'Alī ad-Damīrī (Damīr is a village in Egypt). He composed the book of « An-Nağm al-Wahhāğ « of which one volume is an exegesis of the book al-Minhāğ of Yaḥya bin Šaraf bin marā bin Ḥasan, al-Nawawī (Nawā is a village in Syria): 631 H/1233 A.D. — 676 H/1277 A.D.

33. *'Abdāl:* substitutes

'Abdāl, plural of *badal:* interchangeable star, that is a star which can take the place of another star in measurement. The *'Abdāl* are stars permitting mutual substitution.

43 *Aṭ-ṭālib:* traveller, travelling pilot

Ṭaliba means here to go in search of, to look for, that is to travel. Again, the traveller stands for the pilot himself who is responsible of everybody and of everything on his ship.

35. *An-nafas:* plus

Cf. note 25.

36. *Tilka l-'Urğūza:* that poem in rağaz meter

The problem is which poem is alluded to? In verse 139, the stars referred to are as-Simākayn, mentioned in verse 135 (Spica & Arcturus). In our book, « Stars of Arab Navigation » (in manuscript till now), we found that as-Simākayn are stressed upon in four qasīdas and in two 'urğūzas. But Ibn Māğid makes no difference between qasīda and 'urğūza and he uses 'urğūza for qasīda invariably. So, we can choose any poem dealing with them in particular: Ḏaribatu ḏ-Ḏara'ib (The Jewel of the Jewels), As-Sab'iyya or the Seven Arts of the Sea, Al-Balīġa or the Eloquent Poem and al-Ḥāwiya.

« You should know, said Ibn Magid again on page 236, that the measurements have some absorbing aspects of which we cite the following: when you get up, you must wash your face and eyes with cold water, improve your sit, and take the star to be measured at a distance of seven rhumbs away from the star just opposite to you, as Polaris and Altair. Also, the big tablets give a deficient measurement (minus 1/8th of a finger) and you should stretch your hand as possible; the four small tablets, an excessive measurement (plus 1/8th of a finger) and you should bend your hand as much as you can; the four medium size tablets, a precise measurement. This is due to the extension of the base of the horizon and to the narrowness of its top. You must understand we learned all the details (the fractions literally) of this art. There should be a string between the star to be measured and the tablet and another string between the tablet and the water too ».

26. *Ar-raf‘:* culminating, high in the heavens

Ar-raf‘, high position in Arabic, means culminating: the scientific term is *istiqlāl.* The meaning here is high in the heavens.

27. *Munbasiṭ:* in horizontality, with excess

Munbasiṭ, lying upon the ground in Arabic, stands for in horizontality: the scientific term is *istiwā’.* The meaning here is with excess, plus.

28. *Qiyās nafis:* excessive measurement

Cf. note 25.

29. *Ad-dīra:* the inhabited land.

Ad-dīra is not used here as a scientific term. It is ordinary classic Arabic, meaning the inhabited land.

30. *Mu’arriḫ:* chronicler, recorder

Remembering the poem was composed in the 15th century, many terms had at that time or before special signification which may be different from the actual meaning: the verb ’arraḫa

reference and the variations of their altitudes are compared to show how their altitudes increase or decrease with the altitude of the « standard star » or star of reference.

23. *Muḥtāṭ:* the prudent pilot

The spelling « al-minhāṭ » in the original text makes no sense. It should be emended into al-muḥtāṭ: prudent or wise pilot who foresees the situations.

24. *Al-Ḫašab:* tablets of measurements

The word *al-ḫašab,* plural of *ḫašaba,* stands for the tablets of measurement. Cf verses 63 and 83: ḫašaba: one tablet. It has another meaning in note 69.

25. *Qiyās muḥkam:* precise measurement

There are three kinds of measurements, or, to be accurate, of results of measurements, called nevertheless *qiyās,* measurements, metaphorically:

— *Qiyās nafis, fihī nafas, nafisatu l-qiyās:* excessive values, excessive measurements, or with 1/8th of a finger in addition to the units obtained; this measurement is given by the small tablets.

— *Qiyās ḍayyiq, fihī ḍiq, ḍayyiqatu l-quyās:* deficient values, deficient measurements, or with 1/8th of a finger less than the units obtained; this measurement is given by the big tablets.

— *Qiyās 'āda, qiyās muhkam:* ordinary measurement or precise, or not having any excessive or deficient value; this measurement is obtained by the medium size tablets.

Al-Kamāl is one of the simple instruments, used by arab navigators in the 15th century and before, to take the above measurement. It consists of 12 tablets briefly described by Ibn Māğid in al-Fawā'id, p. 60, 1.69 and p. 236, 1.2-10 and called al-Kamāl in the verse 696 of as-Sufaliyya.Some believe so.

« As to the conditions of the measurement, Māğid says in p. 60, the four big tablets should have a narrow width' the four medium size tablets ordinary dimensions. The tablets have a couple of strings: one between the tablet and the star and one between the tablet and the water. The small tablets must be tangible ».

In navigation, *mawsim as-safar,* or *al-mawsim* shortly, means gathering time for it. And since the travel, is by sea and occurs at the same date or dates, depending upon favourable widnds blowing every year, it becomes fixed, periodic and known in advance all over the year. It is called the sailing season. The so-called solar year of the Arabian Nuruz (364 days) is used to determine the dates.

Open season denotes the time of safe sailing and consequently travelling; closed season, the period in which the boats or vessels suffer shipwreck if they set out for the sea.

18. *Našara al-'alam or al-al'ām: to fly the flag*
Found in verses 27 and 458: leaving or arriving according to the context.

19. *Nataḫa l-barr:* steer for the land
Ibn Māğid uses the verbe *nataḫa* (v 28), the name natḫa (v 33), the plural *natḫāt (v 34), and al-mantah* (v 532). Once, in verse 532, he has *manādiḫ,* but in all other verses, he repeats the previous terms.

In fact *nataḫa* and *nadaḫa* have the same meaning in navigation. Az-Zabīdī says in Tāğ al-'Arūs, *nadaḫa* stands for to drive to as if by a shock. The pilot says: we drove to such coast, or we drove the ship to the coast ».

20. *Qiyās dayyiq:* deficient
cf. note 15

21. *Qiyās nafis:* excessive
cf. note 14

22. *Qayd:* reference star

It is a method of measuring the stars altitude. The term *qayd* does not mean « fetter » as usual. It has a figurative signification:« a horse, is said *qayd* of zebras when he follows them and they can not escape, as if they were tied, said az-Zabīdī in his dictionary ».

Likewise, a group of stars, may be two up to four, must be measured, we suppose. One method is to take a bright star as

This view is confirmed by the description of the beginning of the season of general rains, given by Kendrew (The Climate of the continents, p. 125, 1.2-12):

« The south-west monsoon sets, in, or, ...« bursts ». It is a change not so much in the direction of the wind, as in its *force and in the whole face of the weather.* The wind blows strongly from the south-west, very strongly over the sea; thick masses of cloud cover the sky and the air is saturated with vapor. A downpour of rain, with violent thunder and lightning, initiates the rainy and moist conditions that will prevail for the next three months.The clouds shelter the earth from the sun and the streaming rain helps to cool the air ».

I am inclined to see *aṭ-ṭūfān* « the outburst of the monsoon », not the typhoon as related in Hobson-Jobson, p. 947-950.

12 *Kawwa:* to tack

To move in different directions or to tack.

13. *Qālaba:* to ply off and on

To sail in different directions in a lateral movement.

14. *Raf':* plus

When measuring the altitude of a star, the pilot may obtain an excess of 1/8th of a finger in addition to the units, for example 5 fingers and 1/8th, This excess, usually called *nafas,* is named here *raf'* or increment because of the versification.

15. *Dīq:* minus

When the measurement needs 1/8th of a finger to reach the unity, it is said to be deficient, for example 5 fingers — 1/8th=5 fingers minus. the verb is *ḍāqa al-qiyās.*

16. Al-Ğawš: bow

Ğawš is a pure arabic term, mentioned in aṣ-Ṣiḥāh/It means the chest, the front part. It has the same meaning in navigation: prow, bow.

17. *Mawsim:* sailing season

Wasama means to make a mark on, to put an identifying mark. The name *mawsim* in expressions like *mawsim* of pilgrimage or *mawsim* of markets, stands for the time of that event, when peoples gather for it, as if this gathering were a special mark.

11. *Aṭ-ṭūfān:* air current of the monsoon

In Arabic, ṭāfa means to go round, to envelop, to float. *Aṭ-ṭūfān stands for heavy rainfall, overflowing of the land by water, anything that envelops a large space. Ṭūfān ẓalām al-layl:* the veiling of the night darkness. This is mentioned in Siḥāḥ al-Ǧawharī, in Qāmūs al-Fayrūzabādī and in Lisān al-'Arab which adds: the intense night darkness is called *ṭūfān.*

In navigation, Ibn Māǧid describes *aṭ-ṭūfān* in details, in his Ḥāwiya, chap XI, verses 61 to 72:

« 61. Everybody should obey the orders of the pilot, my courageous man,
62. especially when the signs of *ṭa-ṭūfān,* known in weather, appear.
a-63. For instance, if the dirts obscure the sunlight or the moonshine, beware.
64. If the dirts last three days,
65. without any cloudless gap in the morning or in the evening; if the heat, the rain and the clouds stand firm;
66. if the sea is agitated and if you see the crab; then, change the course of your ship without delay,
67. and go steadily to the nearest harbor. May God protect you from all dangers!
b-68. If you see the dirts in the afternoon, that means the beginning of the wind blowing, as the experienced seamen believe.
c-69. If you hear the thunder claps and see the rain falling not in big, but in thin and tenuous drops;
70. if you see the lightning flashing very high, then the wind will certainly blow.
d-71. If you see the lightning flashing upon the water level, the weather resembles that of the setting of the Pleiades:
72. the wind blows in some places, in others, it does not. Comprehend and understand me. »

This text shows that *aṭ-ṭūfān* is not the heat, or the rain or the clouds or the waves (verses 66-67), it is the expected wind after these signs, that is the air current of the monsoon (south-west or north-east), accompanied by the previous weather general features.

reduced in the original verb: *'al' ama,* and in the word *mul'im.* Lisān al-'Arab consider *awlama* and *mūlim* totally wrong. In fact, this verb and its derivatives are used in Yemen.

Besides, *rīḥ* is feminine. Ibn Māğid makes it masculine.

8. *Zām:* zam

Az-Zām equals the quarter of the day or of the night: 12/4=3 hours. or the eighth part of a solar day: 24/8;3.

In navigation, it is either a unit of lenght (distance gone over in three hours sailing) or one eighth of a solar day, or, an angular unit (1/8th of a finger).

9. *Al-fāl:* reaching the midway of the route

Fāla: to reach the mid-way. The verb *fāla* is not arabic. The seamen derived it from the noun of the Laccadives (*fāl).*

It is said in the history of Aden of Ibn Muğāwir: « when tranvelling ship comes opposite the town (sic) of Socotora or Kudummul mountain, then this parallelism is called *al-fawla* » (p. 33, 1.11-13).

Also, it is reported in the manuscript of Bahrein, folio 61 r: « In case you like to know the number of Zāms you ran over from the Laccadives to the middle of the sea, I mean from the moment you flew the flag, it is customary to say *fawwala,* to pass from al-Fāl to Somaliland when Polaris altitude is two fingers precisely and Vega's elevation is 4 3/4 fingers at its rising, that is to arrive at the mid-distance, three arrows from al-Fal and two arrows from Somaliland ».

Similar explanations are given by Ibn Māğid in al-Fawā'id p. 358, 1.7-8; p. 339, 1.5-7.

Therefore, *al-fāl* (name) in verse 11, means the arrival at the middistance approximately, and *tafula 'anhu,* in verse 10 & 453, is the verb.

10. *Az-Zaḥan:* rough sea or agitated sea

The name *al-hazan* in the original should be emended into *az-zaḥan* and this emendation is corroborated by the confrontation with the same word in verse 13.

Zaḥana 'an makānihi stands for, to move. *Az-zaḥn,* is the movement. It has no other meaning in navigation: agitated or rough sea.

Anyway, *Ḫann* denotes a sector of the heavens reserved for a star or having the name of that star. It is not necessary that of its rising or its setting.

4. *Rābi'u ṯ-ṯalāṯa:* the fourth of the three.

This expression had been repeatedly used by Ibn Māğid, who explained in *al-Fawā'id,* what he means by these words. And first, who are the three,

«In that time — al-'Abbāsid's — , he said, the three famous men were *Muḥammad bin Šāḏān*. *Sahl bin Abbān* and *al-Layṯ bin Kahlān* who is ibn Kāmilān. I saw that written by the proper hand of his grand-son, in a rutter dated 530 H » (*al-Fawā'id,* p. 14, 1.6-9).

These three men are sometimes called the three « lions »; « Aḥmad bin Māğid... the fourth of the three lions who are... » (al-Fawā'id, p. 10, 15-9). By the way, lion means here and in Yemen an intrepid pilot, no more, no less.

Ibn Māğid thought he treated the three with great honor and respect in saying he was the fourth of the three (al-Fawā'id, p. 16, 1.10-11). And he added: « I esteemed them when I said I was the fourth after them, because they lived before me according to the Hegira era » (al-Fawā'd, p. 18, 1.2).

Thus, Ibn Māğid means he came after them, chronologicaly speaking.

5. *Ad-Diyar:* sailing directions

Plural of *Dīra*. Derived from the verb *dāra* which means among other things to turn round or to move toward. *Ad-dīra,* as well as ad-dāra exactly, is the place set for in any displacement.

In navigation, *ad-dīra* is the direction on which a ship is moving. But this direction is not a straight line; it is rather a strip or belt to follow and stay within.

6. *Al'-Isbi':* finger

The finger is the 224th part of the circonference of a circle. It equals 1°36'25" 5/7. This is true for Ibn Māğid and applicable in all his measurements, in all his works. We are not interested in the opinion of Sulaymān al-Maharī for the time being.

7. *Rīḥ Mūlim:* favourable wind

The correct form is *mūlyim* and the correct verb *'alyama,* meaning to gather, to favor. The intensity of the *hamza* is

III — ANNOTATIONS ON THE TRANSLATION

1. *Al-Maǧārī:* courses

Plural of Maǧrā. Derived from: ǧarati-s-safīnatu: the ship makes her way through the water. Therefore, *maǧrā* means the way or path of a ship: her watercourse.

In navigational text, *ǧarā* and *maǧra* imply a route determined by various guiding stars or groups of stars.

2. *Al-Qiyasāt:* meansurements

Plural of *qiyās.* Derived from qāsa: to measure.

In navigation: *qāsa al-kawkab*: to take the altitude of a star. Then the measurement is the process of measuring the elevation af a star.

3. *Al-'Aḫnān:* points of the compass? rhumbs

Plural of *Ḫann.* This word is not found in any of the arabic reference dictionnaries. That does not mean it is not an arabic word since everybody knows these books do not contain all the arabic language. Nevertheless it is said In *al-Qāmūs al-Muḥīt of Fayrūzabādī: Ḫanna l-qawma, waṭi' a maḫannatahum* aw harimahum that is: to enter the withheld land of a tribe. Other meanings of *al-maḫanna*: the middle of the house, a yard, the clear route. *Al-hinn: the unloaded ship. The same explanations are given in Lisān al-'Arab al-Muḥīt of Ibn Manẓur.*

It seems to me that *al-hann* is an arabic word and means the withheld space of a star or its house as used in Astrology.

II- INDEX OF GEOGRAPHICAL NAMES

(figures refer to the verses)

Proper Name	Star	Arabic Name	Reference to the verses
Achernar	α Eri	aẓ-Ẓalīm	29
Acrux	α Cru	al-Murabbaʿ	68, 89, 143, 168, 269
		Anğumu, al-Murabba	171
Alioth	ε UMa	al-ğūn	584
Arcturus	α Boo	Rāmiḥ	18
		ar-Rāmiḥ	121, 155, 157, 160, 161, 164, 167, 172, 200, 271
		al-Mu ʿtalī	131
Arcturus & Spica	α Boo+α Vir	as-Simākān	135, 154
Betelgeuse	α Ori	al-Mirzam	62, 67, 141
Canopus	α Car	Suhayl	121, 123, 131, 162, 163, 167, 289, 290, 329, 471
		as-Suhayl	29, 160
Capella	α Aur	al-Bār	58, 60, 62, 64, 97, 270
		al-ʿAyyūq	66, 91, 93, 132, 141, 145, 329
Castor	α Gem	Šāmī aš-Šāmī	133, 150
The Cross	α β γ δ Cru	al-Murabbaʿ.	292
The Crow	α β γ δ ε ζ Crv	Anğumu al-ġurāb	69
Hadar or Agena	β Cen	aẓ-Ẓalīm	70, 87, 123, 140, 143, 169, 272
Hamal	α Ari	aḍ-Ḍil	18, 200, 268
		a-Ḍil aš-Šāmī	17
The Higher Cross	γ Cru	al-Murabbaʿ al-Fawqī	71
Kocab	β UMi	al-Farqad	122, 175, 252, 254, 258, 462
		al-Farqad al-'Akbar	244
		al-Farqa al-Kabīr	247, 415
Markab	α Peg	al-Farġ al-Muqaddam	
		al-Ğanūbī or al-Farġ	110, 112
Mizar	ζ UMa	Sādis an-Naʿš	31
		al-ʿInāq	48, 54, 584
Phad & Megrez	γ δ UMa	al-'Araʿğ	463
		al-'Araʿğān	517
Pherkad	γ UMi	al-Farqad aṣ-Ṣaġīr	416, 465
Polaris	α UMi	al-Ğuday	163
		al-Ğāh	22,41, 51, 52, 54, 55, 56, 64, 89, 118 122, 123, 156
(Procyon)	α β CMi	aḍ-Ḍira al-Yamani	147
		al-Yamānī	146
		al-Yamanī	148
		aš-Ši'rā al-Ġumaysa'	151
Regulus	α Leo	al-Fu'ād	116
Rigel	β Ori	al-Barrāq	55, 57, 60
Rigil Kent	α Cen	al-Maʿqil	68, 70, 75, 77, 83, 88, 89, 142
Rigil Kent &Hadar or Agena	α β Cen		418, 466
		al-Ḥimārān	
Sirius	α CMa	at-Tīr	91, 93, 96, 145, 289, 291
		Aš-Šʿira	152
Vega	α Lyr	al-Wāqiʿ	133, 150

COMMENT

In as-Sufaliyya, the latitude is given in fingers. The finger equals 1°36′25″ 5/7, since the circonference measures 224 fingers according to Ibn Māğid[1].

Latitude North is obtained by the altitude of Polaris from eleven fingers (latitude of Ǧudda, Ra's al-Ḥadd and Zağad) to one finger (latitude of as-Sīf aṭ-Ṭawīl), and by the altitude of the Guards from seven fingers to four fingers approximately. For the african coast, Polaris is used from Ǧardafun (four fingers) to as-Sīf aṭ-Ṭawīl; the Guards, from Fišt Muqbil (7 fingers) to Malwān (4 fingers).

Latitude South is measured by the altitude of the Guards from 4 fingers to one finger, then by the altitude of the Handle of the Plough from 12 fingers (latitude of Manfia) to one finger (latitude of the southern end of al-Qumr). In the african coast, Na'š means ε ζ of the Great Bear or η alone of the same constellation.

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(1) Al-Ḥāwiya, chap. II, verses 54-55; al-Fawā'id, p. 26.

3- *Stars for finding latitude*

Proper Name	Star	Arabic Name	Reference to the verses
Polaris	α UMi	Ǧāh	7, 62, 76, 84, 85, 96, 104, 140, 143, 149, 154, 161, 165, 168
		al-Ǧāh	15, 20, 170
The Guards	β γ UMa	al-Farâqid	174, 295, 243, 257, 417
		al-Farqadān	283, 333, 413
The Handle of the Plough: Alioth & Mizar	ζ ε UMa	an-Naᶜš	111, 413, 464, 469, 474, 537, 566, 570, 584, 684
		an.Nuᶜuš	467, 498, 499, 511, 541, 571, 578, 581, 588, 634, 654
		Anǧum al-Hirāb	518
Alkaid	η UMa	Sābiᶜ an-Naᶜš	17, 270, 271, 272

TABLE III

Positions of the Mansions throughout the Year

Nuruz Calendar	Byz.Calendar	Rising Mansion	Culminating Mansion	Setting Mansion
Southern Mansions				
1	13 Nov	The Crown	The Lion's Forehead	The Pleiades
13	26 Nov	The Scorpion's Heart or Antares	The Lion's Mane	The Bull's Eye, or Aldebaran
26	9 Dec	The Scorpion's Tail Shaula	The Lion's Tail or Denebola	Orion's Head
39	22 Dec	The Ostriches	The Bow's Stars	The Twins Feet
52	4 Jan	The Void Space	Spica	The Twins Head or Castor & Pollux
65	17 Jan	The Goat's Horn	The Faint Stars	The Lion's Sneeze
78	30 Jan	The W.B.'s left hand	The Scorpion's Stings	The Lion's Eyes
91	12 Feb	The W.B.'s left shoulder	The Crown	The Lion's Forehead
104	25 Feb	The W.B.'s right hand	The Scorpion's Heart or Antares	The Lion's Mane
117	10 Mar	Pegasus Shoulder	The Scorpion's Tail or Shaula	The Lion's Tail or Denebola
130	23 Mar	Pegasus Leg	The Ostriches	The Bow's Stars
143	5 Apr	The Whale's Belly	The Void Space	Spica
Northern Mansions				
156	18 Apr	The Ram's Horns	The Goat's Horn	The Faint Stars
169	1 May	The Ram's Belly	The W.B.'s left hand	The Scorpion's Stings
182	14 May	The Pleiades	The W.B.'s left Shoulder	The Crown
195	27 May	The Bull's Eye or Heart or Aldebaran	The W.B.'s right hand	The Sorpion's Heart, Antares
208	9 June	Orion's Head	Pegasus Shoulder	The Scorpion's Tail, Shaula
221	22 June	The Twins Feet	Pegasus Leg	The Ostriches
234	5 July	The Twins Head, C&P	The Whale's Belly	The Void Space
247	18 July	The Lion's Sneeze	The Ram's Horns	The Goat's Horn
260	31 July	The Lion's Eye	The Ram's Belly	The W.B.'s left hand
274	14 Aug	The Lion's Forehead	The Pleiades	The W.B.'s left shoulder
287	27 Aug	The Lion's Mane	The Bull's Eye or Heart or Aldebaran	The W.B.'s right hand
300	9 Sep	The Lion's Tail or Denebola	Orion's Head	Pegasus Shoulder
313	22 Sep	The Bow's Stars	The Twins Feet	Pegasus Leg
326	5 Oct	Spica	The Twins Head, C&P	The Whale's Belly
Southern Mansions				
339	18 Oct	The Faint Stars	The Lion's Sneeze	The Ram's Horns
352	31 Oct	The Scorpions's Stings	The Lion's Eyes	The Ram's Belly

Proper Name	Star	Arabic Name	Rising	Culmination	Setting
Northern Mansions			N B	N B	N B
The Ram's Horns	β γ Ari	an-Naṭḥ[1]	156-18 Apr	247-18 July	339-18 Oct
The Ram's Belly	ε δ ρ Ari	al-Buṭayn	169- 1 May	260-31 July	352-31 Oct
The Pleiades 17, 19, 20, 27, 28	φ e d η f Tau	aṯ-Ṯurayya	182-14 May	274-14 Aug	365-13 Nov
The Bull's Eye or Heart or Aldebaran	α Tau	ad-Dabaran	195-27 May	287-27 Aug	13-26 Nov
Orion's Head	λ φ 1-2 Ori	al-Haq'a	208- 9 June	300- 9 Sep	26- 9 Dec
The Twins'Feet	γ ξ Gem	al-Han'a	211-22 June	313-22 Sep	39-22 Dec
The Twins'Head or Castor & Pollux	α β Gem	aḍ-Ḍira'	234- 5 July	326- 5 Oct	52- 4 Jan
The Lion's Sneeze	ε Cnc	an-Naṯra	247-18 July	339-18 Oct	65-17 Jan
The Lion's Eyes	ϰ Cnc + λ Leo	aṭ-Ṭarf	260-31 July	352-31 Oct	78-30 Jan
The Lion's Forehead	α η γ ζ Leo	al-Ġabha	274-14 Aug	365-13 Nov	91-12 Feb
The Lion's Mane	δ υ Leo	az-Zubra	287-27 Aug	13-26 Nov	104-25 Feb
The Lion's Tail or Denebola	β Leo	as-Ṣarfa	300- 9 Sep	26- 9 Dec	117-10 Mar
The Bow's Stars	β η γ δ ε Vir	al-'Awwā'	313-22 Sep	39-22 Dec	130-23 Mar
Spica	α Vir	as-simāk-al-A'zal	326- 5 Oct	52- 4 Jan	143- 5 Apr
Southern Mansions					
The Faint Stars	ϰ λ Vir	al-Ġafr	339-18 Oct	65-17 Jan	156-18 Apr
The Scorpion's Stings	α β Lib	Az-Zubāna	352-31 Oct	78-30 Jan	169- 1 May
The Crown	β δ π Sco	al-'Iklīl	365-13 Nov	91-12 Feb	182-14 May
The Scorpion's Heart or Antares	α Sco	al-Qalb	13-26 Nov	104-25 Feb	195-27 May
The Scorpion's Tail or Shaula	λ υ Sco	aš-Šula	26- 9 Dec	117-10 Mar	208- 9 Jun
The Ostriches	γ δ ε η δ σ τ ζ Sgr	an-Na'ayim	39-22 Dec	130-23 Mar	221-22 Jun
The Void Space	π sgr	al-Balda	52- 4 Jan	143- 5 Apr	234- 5 July
The Goat's Horn	α β Cap	Sa'd aḍ-Ḍabih	65-17 Jan	156-18 Apr	247-18 July
The Water Bearer's left Hand	ε μ ν Aqr	Sa'd Bula'	78-30 Jan	169- 1 May	260-31 July
The W.B.'s left shoulder	β ξ Aqr + c1 Cap	Sa'd as-Su'ud	91-12 Feb	182-14 May	274-14 Aug
The W.B.'s right hand	γ η π ζ Aqr	Sa's.al-Aḫbiya	104-25 Feb	195-27 May	287-27 Aug
Pegasus Shoulder	α β Peg	al-Farġ al 'Awwal	117-10 Mar	208- 9 June	300- 9 Sep
Pegasus Leg	γ δ Peg	al-Farġ at Ṯānī	130-23 Mar	221-22 June	313-22 Sep
The Wale's Belly	β And	Baṭn al-Ḥūt	143- 5 Apr	234- 5 July	326- 5 Oct

COMMENT

In as-Sufaliyya, Ibn Māğid uses seven mansions only (2 southern and 5 northern) out of 28 distributed on a circle of 224 fingers, at intervals of 8 fingers: 14 are visible and 14 invisible.

These mansions constitute the guiding stars for the navigators from dusk till dawn(1). Their names are given and their rising, culminating and setting times are looked to throughout two calendars made equivalent: the Arabian Nuruz year of 364 days and the Byzantine's or Rum's year of 365 days. The first of the Arabian Nuruz corresponds to the 13th day of November invariably. Every 13 days (14 days for the Lion's forehead only to compensate the difference of one day between the two calendars), a mansion rises, a second one sets, a third culminates in the northern hemisphere, and a forth culminates in the southern hemisphere. Any mansion stays visible for 182 days after its rising, culminates above the forizon 91 days after its rising and under the horizon, 273 days after its rising. It rises again 365 days after its precedent rising and so on(2).

Thus, for the whole year and for all places, the seaman has at his disposal 28 guiding stars or groups of stars. He knows well where to find them in the heavens and when they rise, culminate and set. Tables II & III outline these phenomena.

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(1) Al-Ḥawiya, chap. III, verse 11-14.
(2) Al-Hawiya, chap. II & III.

2- *Guiding Mansions*

Proper Name	Star	Arabic Name	Reference to the verses
Bull's Eye or Head or Aldebaran	α Tau	ad-Dabaran	270
Antares or the Scorpion 's heart	α Sco	al-Qalb	75, 77, 83, 87, 88
The Twins Head or Castor & Pollux	α β Gem	aḏ-Ḏirāʿ	152
		aḏ-Ḏiraʿ aš-Šāmī	148
		aš-Sāmī	146
The Lion's Tail or Denebola	β Leo	as-Ṣarfa	174-243
The Whale's Belly or Mirach or Pisces	β And	Baṭn al-Ḥūt	114-116
		al-Ḥūt	114, 119
The Ram's Horns	β γ Ari	al-'Ašrāṭ	53
		aš-Saraṭān	31, 48
Spica	α Vir	al-'Aʿzal	155, 156, 160, 268, 269

TABLE I

Proper Name	Star	Arabic Name	Declination	Ap. Magnitude
Polaris or N.Star	α UMi	al-Gâh	89° 02′	2.0
The Little Bear	β γ UMi	al-Frâqid	(72°30′-71°30′)	(2.0-3.0)
		al-Farqad[1]	(72°30′-71°30′)	(2.0-3.0)
The Great Bear	α β γ δ UMa	an-Naʿš	(61°30′-52°)	(2.0-31/2)
Cassiopeia	β Cas	an-Nâqa	(59°)	(2.0)
Capella	α Aur	al-Bār	+45°57′	0.09
The Lyra, Vega	α Lyr	al-Kāṣir[2], al-Wâqi,	+38°44′	−0.03
Arcturus	α Boo	as-Simāk, ar-Rāmiḥ[3]	+19°26′	−0.06
The Pleiades 17, 19, 20, 27, 28	φedηf Tau	an-Nağm, at-Ṯurayya	+24°15′ Alcion	3-4
Al-Ṭair	α Aql	Šaqqâq al-'āfâq or al-Ḥīrân	+08°44′	0.75
Orion	δ ϵ ζ Ori	al-Ğawza'	0°20′-01°58′	2.5-2
Sirius	α CMa	aš-Šiʿrā or at-Tīr	−16°39′	−1.47
The Crown or	β δ π Sco	al-'Iklīl	−25°-19°40′	21/2-31/2
Antares	β Sco	al-Qalb	−26°19′	0.92
The Scorpion or Shaula	λ Sco	al-ʿAqrab	−37°04′	1.61
Centaurus:		al-Ḥimārān	−60°38′-60°08′	−0.1-0.61
Rigel Kent	α Cen			
Agena or Hadar:	β Cen			
Canopus	α Car	as-Suhayl	−52°40′	−0.71
Achernar	α Eri	al-Muḥniṭ or as-Sillibār	−57°29′	−0.49
Canopus Pole			−70°	

(1) Al-Farqad, al-Farāqid, al-Farqadān may be used for each other in poesy. (2) Al-Kâtir is a persistant wrong spelling for al-Kāsir. (3) A third possibility is as-Simāk ar-Rāmiḥ.

fact, this is not always true, because the distance between two consecutive stars or groups of stars, is never 7 fingers as it should be (11°15′), and that α β Cen (al-Ḥimārān) sector comes before Canopus and Achernar sectors, although its declination is superior to theirs, and this fact is well known among the arab seamen[1]. In this conjuncture, it seems that the Point-Polaris is of the utmost importance for drawing the sectors which lead to the guiding stars. Thus the sectors are believed to be a kind of frame of reference to show the beginners how to find and learn the positions of the stars of navigation that give the sailing directions. The skilled pilot recognizes them without any help or circle. The complete 16 guiding stars are listed in the following table, including the arabic names related in al-Ḥāwiya.

(1) Al-Fawāid, P. 136, 1.9-10: «al-Himārān are nearer than Canopus to the South Pole.

COMMENT

In the poem of al-Ḥāwiya, Ibn Māǧid calls the Cards of Arab Navigation «The Circle of the Ship»[1] and the «Circle of the houses»[2]. Its circumference measures 224 fingers[3]. The position of al Ǧāh or Polaris is marked on it[4]. A diameter, drawn through the Point-Polaris and the Center of the circle, determines two semicircles: the eastern and the western. Each of them is divided into 16 sectors of seven fingers (224/32 = 7) beginning from the Point-Polaris clockwise. Then, ten stars of the first apparent magnitude and six famous stars or groups of stars of visual magnitude varying between 2 and 3, are chosen, and their names are given to the sectors - not to the points - as proper names. The basis of this choice would be, theoritically, the apparent rising and setting of these stars in the sectors. In

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(1) Al-Ḥāwiya, chap. II, verse 14.

(2) Al-Ḥāwiya, chap. II, verse 54: «Mandil al-'Ahnān»: circle of the houses of the stars. Hann is arabic, not persian: it means dǎr or house, or main clear route, exactly as Mahanna. So, the circle is the circle of the stars 'houses or the circle of the routes. The first translation is preferred.

(3) Al-Ḥāwiya, chap. II, verse 55.

(4) This may be done visually when Polaris is seen, or - by means of the astrolabe or the magnetic needle, said Ibn Māǧid in al-Fwā' id, p. 117, 1.4-5.

I—INDICES OF THE STARS OF ASTRONOMICAL NAVIGATION

1- *Orientation stars or nebulae*

Proper Name	Star	Arabic Name	Reference to the verses
Achernar	α Eri	al-Muḫniṯ	187, 307, 315, 336, 408, 423, 451 454
Antares (Scorpion)	α Sco	al-Qalb	663
Arcturus	α Boo	as-Simâk	22, 527
The Great Bear	α β y δ UMa	an-Na'š	636, 639, 652
		al-Banât	180
		an-Nu'uš	701
The Little Bear	β y UMi	al-Faraqid	636
		al-Farqad	638
Canopus	α Car	Suhayl	186, 470, 471, 643
		as-Suhayl	181, 189, 191, 206, 286, 305, 357, 359, 373, 407, 409, 424, 478, 539, 600, 653
Centaurus:			
Rigil Kent	α Cen	al-Ḥimâr	127, 196, 207, 371
Rigil Kent & Agena or Haldar	α β Cen	al-Ḥimârân	258, 280, 302, 362, 395, 662
The Magellanic Clouds		as-Saḥâb	701
The Crown	β δ π Sco	al'Iklîl	42, 101, 106, 128, 231, 319, 354, 476, 479
Nebecula Major or the Greater Little Cloud (White Clouds)		al-Bîḍ or as-Sa. ḥaba al-Bayḍâ	287, 288
Nubecula Minor or the lesser Little Cloud (Dark cloud)		as-Saḥayib' as-Sa, da or as-Sawdâ'	292
Orion	δ ε ζ Ori	al-Ǧawza	8
		al-Ǧawza'	28, 303, 398
The Pleiades 17, 19, 20, 27, 28	φ e d η f Tau	aṯ-Ṯurayya	527
Polaris or the N. Star	α UMi	al-Ǧâh	15,20
Scorpion or Shaula	λ Sco	al-'Aqrab	101, 127, 182, 196, 207, 280, 286, 396, 476, 479, 514, 540
Sirius	α CMa	at-Tîr	8, 41, 303, 354, 398, 456, 660, 663
Vega or the Lyra	α Lyr	al-Kâsir	22

PART THREE

INDICES AND BRIEF COMMENTARY ON THE TRANSLATION

98. The ar-Ruhh Islands, the Dwarfs whose ancestor is Adam — learn that — ,

99. then the fractions in the measurements, and that sailing directions, or a reef, or a desolate island,

100. or the strenght of the water, or a harbor for anchoring. The good pilot is the one who can manage.

101. Examine and verify everything, if you comply with my instructions. Safety is in them, o pilot. Make your choice,

XVII — *F. 96 r, 15-16; ET: between 690-691:*

102. You shall gain, through the Franks, knowledge about these routes and improve your skill

103. by the time and by repetition. They discovered new routes, be informed.

XVIII — *F. 69 r, 19-20; ET: between 692-693:*

104. I composed it (as-Sufaliyya) without any help. Absolutely not. And nobody asked for any clarification about it.

105. Out of the way is the comparison between a pilot who inquires in the right way and the pilot who never finds anything to ask about.

XIX — *F. 96 r, 22; ET: between 693-694:*

106. He, exclusively, granted me the privilege to voyage to all countries, guides and led me safely to my destination.

82. Thus, think over what I say about the unknown seas.
83. Do the same for the rutter of the ancient pilots to which the scientists refer no more.
84. The names in it have been altered and changed; the famous ones are the best for the pilot.

XII — *F. 95 v, 14; ET: between 666 and 667:*

85. But we heard a strange information from an intelligent, nice and experienced pilot.

XIII — *F. 95 v, 20-23; ET: between 670-671:*

86. You find al-Qušūš and aš-šuğūr in that place, my colleague.
87. Al-qurūš, the birds, al-qadd, and al-qarfā are so numerous, be informed,
88. that we imagine we are in the sea or we have mountains under us in the sea.
89. When we learned the knowledge of this coast, we doubted no more and are now well informed.

XIV — *F. 95 v, 29; ET: between 676 and 677:*

90. The Franks said precisely they discovered them (the islands) on the road.

XV — *F. 95 v, 32-33; ET: between 677-678:*

91. The pilots set out from Sofala on the 170th day for sure,
92. or before or after that date. Know that. It is the best sailing season.

XVI — *F.69 r, 4-12; ET: between 688-689:*

93. The sailing distance between the mainland and al-Qumr is 8 zams. This is true
94. for the southern end of al-Qumr, and agreed upon, my dear.
59. Another appellation, meant by al-qumr, is correct, listen to my information, because
96. I mentioned for it, what suits the voyage, and so many islands in addition to al-Qumr and so many dangers.
97. It would have been enough to relate the Women's Island in which the unlucky wrecked is thrown alone,

64. They pass there between mountains, and make a written report about the route conditions
65. for whomever of them is returning from India or from their arrival point, understand my instructions.
66. Sometimes, they meet in that place; in other times, they come one after the other,
67. because it is the middle of the route between their country and the land of Malabar, take my description.
68. Their voyage takes six months truly. Be informed of that. There are many islands on their way,
69. The ships sail on the 90th day of the Nuruz for their outward and returning voyages. God protect you from the wreckage.
70. Whatever island the Franks went to, they put ashore their men and ruled.
71. Expect from them to comply with their method in their outward trip and when they return,
72. so you might understand the events of the sea. All I have mentioned is written.
73. I intend to improve your knowledge about the sea. Get a better learning after my death, o intelligent pilot.
74. You shall learn their science, because they will not leave this region.
75. When your days and nights become numerous, you shall not regret to die.
76. If I could live till the event of the peace, I would acquire a praiseworthy knowledge
77. about the entire northern Byzantine land and about China. And I wouldn't have had enough.

XI — *F. 95 r. 24-30; ET: between 641 and 642:*

78. If their names are taken from al-Ḥāwiya, the number needs only to be counted.
79. It may be said the measurement is ten fingers at Madwar and Diu. Understand as I do and profit.
80. It may be said Mayāham, Tāna and Dahrāwī, take my elucidation.
81. The measurement may be seven fingers at Sāğir and Ẓafāri, understand my indications.

48. Whoever tries to go to China, minds the dangers of his destination; otherwise he would have expected the fulfillment of his desire.
49. The Franks returned from India to Zanğ by this road.
50. Later on, in 906 H, they went to India, my brother.
51. They bought houses and settled. They set friendly relations with the Zamorine and trusted him.
52. Meanwhile, the people tried to guess their plans. They thought they might be conquerors or foolish thieves.
53. the Franks used to coin the currency in the harbor of Calicut between their voyages.
54. I would have liked to know what they were going to do, while all men were amazed by their performance.

IX — *F.94v, 13; ET: between 619 and 620:*

55. The Franks, I mean the Portuguese, referred to us in that, and they gave him refuge.

X — *F.94v, 25-34 to F. 95 r, 1-12; ET: between 630 and 631:*

56. As to the Franks, they persisted in their voyages on that route until they became experts in it.
57. I have been told that when they set out from their land, they sail by
58. west and south for ten days with favourable and fair winds,
59. till the vicinity of al-Ḫālidāt islands, where they saw some islands in front of them and at the entrance, as it was reported to me.
60. Then, they set their course on Canopus for ninety days, listen to my say.
61. The water's depth stays always eight « stretch-edarms ». It never diminishes and remains quite above that figure,
62. until they leave as-Sa'ādāt islands behind them. Be informed.
63. Henceforth, they steer ahead for the coast of Ḥabaš and cast anchor safely.

31. He informed me about the expedition of the Franks who came from the Sudan's shore, through the deep sea,
32. who defeated the Maghrebians and submitted Andalusia to their authority.
33. Numerous islands, allied with the Franks, lie at their extreme northern border.
34. This mainland stretches toward the east and bends toward the south, take my true information,
35. as far as China frontiers, o my brothers, learn my description and imagine the land.
36. At the right hand, extends the Turks, Georgians and Armenians land, as it was reported to me.
37. There is nothing between them and the sea, but the Range of Mountains whose down-dropped easter side should be abandoned.
38. At the extreme western border of the Franks, there are four islands, my dear,
39. called Franğiya. They are elevated, large, high and visible.
40. All Franks ancestors are from here. This people had never been defeated.
41. He has an extremely powerful fleet of ships. Know that Venetia, my friend,
42. is a market for all peoples living in the vicinity of the Byzantine Empire (Rum), but she is wealthier than them, o my relatives.
43. I gave a true description of them. I did my best. I know not what will happen in the future after me,
44. regarding triumph and assault matters between them and the inhabitants of India.

VII — *F. 94 r, 2; ET: between 585 and 586:*

45. The Franks ships went to it (Wašīkā island). They attacked and conquested it.

VIII — *F. 94 r, 12-20; ET: between 594 and 595:*

46. the Franks' Ships went to Wāzah in 900 H, o my brother.
47. They opressed it two full years. Then, they proceeded forward to India certainly.

17. the coasts of the mainland and all its islands. The mainland under their rule covered the regions
18. as far as the confines of az-Zuqāq Sea and henceforth till al-Qumr, o my companions.
19. They governed the islands lying seaward, at a distance of twenty zams, off the mainland of the heathens (=Frnaks).
20. All these islands appear clearly in the west, my dear, at the southern shore of the sea.
21. Sabta, which belongs to the inhabitants of 'Adwa, is allied[1] with them, I mean al-Ḫālidāt islands, understand my discourse,
22. because they are near the western shore of that sea, at a sailing distance of twenty zams.
23. My island (=Andalusia) is opposite[2] to them, ahead of the Franks, this is the fully true information,
24. because the inhabitants of these islands are white[3] learn that.
25. They come from as-Sa'ādāt Bay, at the east of al-Ḫālidāt, guide yourself.
26. The mainland is allied with the government of all other regions. God protect you from all lands and wrecks.
27. The Franks went to Calicut, take this useful information, in 906 H, even after.
28. They sold and bought goods or ruled They bribed the Zamorine and oppressed the people.
29. The detester of the Islam moved freely in Calicut and the people was frightened and anxious.
30. The Meccan interrupted his voyages to the Zamurine's land; and Ǧardafūn became assigned to the watchman.

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(1) Wātā is an arabic verb used in yemen only. It might allude to a yemenite inserter.

(2) Manāhumu in Arabic means in face of them.

(3) In Arabic « red » means « white », when qualifying the races.

6. The heavy surfs of Sofala's heads fell back and struck them.
7. Their masts were swept away and thrown overboard, and their ships floated on the waters, my brother.
8. They were drowned and could see each other. Know the sailing season of this land[1].

IV — *F. 93 r, 11-16; ET: between 559 and 560:*

9. It[2] shows that the Nile is divided into three branches, without any conjecture.
10. One branch runs toward Nubia. It is a muddy stream, has soft water and is situated near Šanǧā, o my hope.
11. The second branch goes to Kwāma. I have mentioned it before[3] — this is an indication —
12. The third branch is the Egyptian Nile[4]. Trust me regarding the Gold, my friend:
13. the inhabitants of the West and North used the Nubian gold, rely upon my information,
14. to coin the currency called al-'Ašrafī. So, ask not anyone anymore about it.

V — *F. 93 r, 19; ET: between 561 and 562:*

15. It (the residence of the king of Zimbāwī) is a center of Gold[5] be informed, and a region of slave traders, o inexperienced young man.

VI — *F.93 r, 24-34 to F.93 v, 1-18; ET: between 565 and 566:*

16. The Franks promoted our scientific knowledge and dominated the road,

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(1) Whatever shipwreck is referred to, how could the men see each other after having been suffocated by immersion?

(2) No antecedent for the pronoun « it ».

(3) It is not related in the previous verses, nor in any other poem of the author. In al-Fawā'id, Ibn Māǧid (pp.281, 1.12-13) says: « As to the Egyptian Nile, it originates in Abyssinia » and that is all.

(4) The contradiction of this false passage with the true one and its confusion are clear (cf 596-600 ET). Besides, al-'Ašrafi is the name of various gold coins of the egyptian Mameluks, used in Yemen too. The Portuguese gold coin at that time was the Cruzado. It is a pity to pretend that the cruzado and al-'ašrafi are made of the nubian gold!

(5) Bī in Arabic means region.

APPENDIX

THE FALSE VERSES INSERTED IN AS-SUFALIYYA

I — *F. 89 v, 13-14; ET: between 350 and 351:*

1. In it (Zanzibar), for sure, you keep perceiving as-Simākayn (Arcturus & Spica) high in the heavens — understand the precise meaning —
2. till the neighborhood of al-Mašwī island which is at left[1], o my brother.

II — *F. 91 v, 7-8; ET: between 470 and 471:*

3. But along the coast, all peoples sail in security by the rising of Canopus.
4. Cast the anchor during the day or at night in any reef you reach and spend the night.

III — *F. 92v, 4-7; Et: between 525 and 526:*

5. The Franks(=Portuguese) had been drifted toward it (Sofala) during the closed season, on St Michael feast[2] as it was fancied.

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(1) The sailing route comes from the north, passes through the channel of Pemba, then through the channel of Zanzibar, and between Zanzibar and al-Mašwi. Thus Zanzibar is at left. So are the 16 islets at the south-west of Zanzibar. Al-Mašwī is necessarily at the right of the route and not at left.

(2) November 8, in the Orient.

696. I have given much knowledge till now, you will get completely used to it, when sitting to measure with al-Kamāl (100).
697. The reefs, the coast, the measurement, the wind, the sailing seasom and the people,
698. the anchorages, the islands sailing season, I verified precisely all that, listen to my advise.
699. Sail steadily to the isles, bless the Prophet and take my recommendation.
700. God bless in the morning and at dawn, the Chosen, the best of all men,
701. as long as the stars of the Great Bear revolve around the pole, and the Zanğ guide themselves by the Magellanic Clouds.

[EPILOGUE]

66 — [The science in as-Sufaliyya].

689. Think of the science in as-Sufaliyya, which guides you in the South, take my discourse.
890. You shall not find any other poem, dealing with that route and having a larger view in verified knowledge.

67 — [Number of verse of as-Sufaliyya].

691. as-Sufaliyya has seven hundreds verses, it exceeds them by one verse. Learn it form Aḥmad as-Sa'dī.
692. Implore God, the Forgiver of sins, for me, in my life and after my death.
693. I know that route of the South so well that the pilot of the South himself used to ask me about it and about its reefs.
694. Everybody will trust anyone who observes visually.
695. The pilots believed in me and in the Guiding Prophet, and neglected those who saw the country.

673. That is why the traveller sights them when he goes seaward for fear of the WSW wind, on his route to al-Ḫaḍrā island.

674. In some years, very rarely, the pilots steer, in their travels, for Zanzibar,

675. from its back, not from the west side. So, comply with my instructions, or try by your own.

676. I explained it to you, o my friend; the reporter alone is responsible for it.

65 — [Sailing seasons of the coast and the isles).

677. Be informed that the sailing season, for the pilot of as-Sawāhil, to al-Qumr and its isles, and then to Sofala,

678. extends from the first day of an-Nuruz to the 70th For the pilot of Kilwa, the season is on the 90th day.

679. But the sailing season to Kilwa is the 20th day, I have already mentioned (99) this season, my dear.

680. Sofala has only one season, profit of it and be wise.

681. Regarding al-'Aḫwār and al-Qumr, the expert pilots indicate a common season.

682. which can be used two or three times every year, for the journey to Anǧazīǧā,

683. The best season for the outward and return voyages is on the 100th day of an-Nuruz, my dear,

684. but by light breeze, not by strong wind, for the return voyage, not for the outward, o pilot.

685. The additional season falls in the Dīmānī, for the return voyage, not for the outward, o pilot.

686. The pilots of al-Qumr have two seasons for as-Sawāhil, o inquirer.

687. I related all the courses, I missed none, If you ever cross this sea in your life,

688. you shall notice the truth of my say and deed, because this art is a great rational science.

655. But it lies in the east, o pilot, much farther in the sea than Tīrī Raǧā, o brother.

64 — **[Sailing directions between the islands and the littoral].**

656. The sea route from the islands to the littoral takes three days sailing at least.
657. Some islands are close to the african coast, the pilot sets out for them by the breeze of the two sails (97),
658. Some others can not be reached by the WSW wind unless you depart from al-'Aḫwār.
659. But the crossing by the mild wind resembles that of Socotora, learn that.
660. Navigate from Kitāwa to ra's al-Milḥ by Sirius ≢, o pilot, this is my advise.
661. If you set out from Mombasa to Damūtī, learn these descriptions,
662. sail by Centaurus ≢. From Zanzibar toDamūtī, the courses are
663. by the rising of the Scorpion ≢. The pilot of Kilwa sails to it by the rising of Sirius ≢. Learn and teach the pilots.
664. The pilots of Sofala and al-'Ahwār travel rarely to the islands discuss not.
665. If they do, they travel to the southern islands. Some of these pilots come once within years.
666. Some islands lie at the east of al-Qumr. A wise and well informed pilot told me about them.
667. These islands spread towards the north and extends in the east opposite.
668. Barāwa, al-Ǧubb, Kitāwa and Mombasa, understand my say.
669. The islands of Zarīn are counted among them, be intelligent.
670. I do believe this information because I found not in az-Zanǧ any
671. cross wave (98), o good pilot, which should increase here.
672. They are separated from each other, understand my instruction.

63 — [Altitudes of the handle of the Plough in al-Qumr and in its islands].

640. Hereafter are the measurements of the islands, I mean which are known to the pilots
641. and their routes to as-Sawāhil. I hide not my knowledge, my friend.
642. Take the latitude of Damūtī eleven fingers of the handle of the Plough. Then, at a distance of 20 zams from Wamīzī, seaward, you shall be.
643. You reach the islands, if you sail from Kitāwa to Damūtī by Canopus ≠.
644. You realize your wish and find purchase and sale in these islands. Damūtī is opposite to Diabwā in the sea.
645. In Damūtī the altitude of the handle of the Plough (96) is ten fingers and half, listen to my discourse, get not tired of my description.
646. Measure the altitude of the handle of the Plough ten ordinary fingers at Sa'dah, which is at the east side of all the islands, learn this useful utility,
647. because it is one of the islands of al-Qumr from which it can be seen, take my information.
648. Measure the altitude of the handle of the Plough nine fingers at Linǧānī which lies seaward, my brothers,
649. off the coast of al-'Aḫwār, at a distance of more than 30 zams, take my word.
650. Till now, I have mentioned five famous islands in which there are sale and purchase. They are inhabited.
651. The desolate lands are lifeless. No need to tell anything else about them.
652. Al-Qumr ends where the Great Bear can no more be seen, o inquirer, take my indications.
653. The southern end (toward Canopus) of al-Qumr has a correct name, measure the altitude of the handle of the Plough in it, my friend.
654. The northern end is at eleven fingers of the handle of the Plough. It is twenty zams from the island of Munawwarah.

[Chapter V]
[Navigation between the East African Coast, al-Qumr and the islands]
[Altitudes of the handle of the Plough, Sailing seasons, Sailing directions]

62 — [Location of al-Qumr and of its islands].

631. At the eastern side of the African coast, extending from Sofala to as-Sawāhil, nothing disappears in the far horizon,
632. in the sea, except al-Qumr and the islands situated between al-Qumr and the littoral precisely.
633. The most famous island is 'Anğazīğā, o my friend, and it is obviously at the west side of all the other isles.
634. It is at latitude eleven fingers and a quarter of the handle of the Plough. It is a large island, listen to me.
635. Sail from Anğazīğā to anywhere you like in al-Qumr in the east, I tell you the truth.
636. The islands lie opposite to al-Qumr, at the setting of the little Bear ≢ and of the Great Bear. This location is sure, learn it.
637. The southern end of al-Qumr is directed toward the pole, without lie.
638. So is Sofala. From al'-Aḫwār, you go by the setting of the Little Bear ≢ by experience.
639. till the borders of al-Ğubb and the land of al-Maqdiš. From there, you incline to the setting of the Great Bear ≢.

613. Ar-Ruhh dwells in them, since they have lonely elephants (93) he watches.
614. He flies carrying the elephant from the shores of the islands, take my information,
615. called « Fortunate Islands » according to trustworthy references, take these useful indications.
616. These isles are nearby the southern coast and close to the Eternal islands, understand the truth.
617. Every expert and clever pilot hnows them well: they are the beginning of the wilderness (94), comprehend my allusions.
618. These informations are sufficient about the inhabitants of these islands in my time, o my pilot.
e-619. Next to these isles, in the north, take my information, some people as tall as the arm of the Egyptian are living.
620. Some of them take refuge, o couragous pilot, in the kingdom of Munā of Manāwī.
621. The center of gold above Sofala is called Wadīğrā, take this true information.
622. Steer for land opposite to it, o my friend. The last of the cities is called Sīha,
623. which is at a walking distance of one month from the center of Gold toward the northwest, it is amazing.
624. Its inhabitants are naked barbarians in the inlands, they know not the Takrūr language.
625. There is a rough and muddy water between them and Takrūr. The Takrūr see them with naked eye very clearly.
626. They wait on the coast for the ships setting sail for their sea.
627. and look at the fire and smoke, except those who saw the place.
628. The mud contains drinkable water seeping from the Egyptian Nile, understand my discourse,
629. which mixes with the sea in the west. This is what was reported to me, my friend (95).
630. I retained only the true informations, reported by the experienced pilot.

594. Its inhabitants are white (91) because of the low temperature, my brothers,

595. till the range of mountains where the Egyptian Nile flows down slope eastward. So, take their description.

b-596. The surface runoff of this range forms three streams: first, the Nile that flows toward the north

597. and has many cataracts whose number is known by God, the Creator and its Maker;

598. the second, the western stream, runs to the country of the heathens who are the barbarians of the inland of sofala,

599. — The desolate and muddy Sudan lies, o pilot, between the first and second streams, o brother —

600. the third stream, the eastern, goes to Kwāma bay and flows toward Canopus≢, this is its sign.

c-601. Kwāma is the center of Gold in Sofala of the rivers,

602. because the inhabitants of the countryside are isolated and scattered in a flat (92), wide, perfidious land,

603. full of reptiles and wild animals. The elephant in it is tame without being domesticated.

604. It equals the two thirds of the world and of all the creatures in the north, west and east;

605. thus one third is left to other peoples. Calculate on this basis the part and the excess.

606. There is no route for the traveller in it and the trees mix and interlace.

607. Men circulate on the coast, on the west, north and countryside.

608. They keep passing by and approaching. And it is true, as it has been reported, my friend,

609. that they bring the zingiber and copper for the heathens of Sofala of the slave traders,

610. for whomever brings them the gold and silver, take my information.

d-611. Everybody knows there is no other similar center, except in the west.

612. Nothing lies in their southern side but unknown islands in the sea, without any signs.

577. there is a harbor sheltered from all winds, at latitude five fingers and a half « deficient ».

578. After this harbor, you encounter in the south, at latitude five fingers of the handle of the plough, as reported by experienced pilots,

579. a country called [southern] Mulbayūnī. It is around the harbor, I mean Mulbayūnī. It is supposed so.

580. Then comes Malābatī which is said to be on the shore; so, no doubt about it.

581. It lies at latitude four fingers « excessive » of the handle of the Plough, as the pilots reported to me.

582. The islands of Sadbuwah, which are three, follow at the south.

583. The best of them is Wašīkā where ivory and ambergris are found.

584. In it, the altitude of Alioth and Mizar, I mean the altitude of the handle of the Plough, o my companion,

585. is three fingers, as experienced and verified by experts pilots.

586. Nothing else is known, but the island of Wāzah. And no pilot sailed south of it.

587. There are reefs, dirts and mountains, known by God, the Magnificient.

588. At Wāzah, the altitude of the handle of the Plough is two fingers without mistake, my brother; then the land ends.

61 — [Countries and peoples bordring Sofala].

a-589. This is what we know, my friend. The land turns there toward the west

590. till it reaches al-Wāḥāt coast, and comes at the west of at-Takārah,

591. I mean al-Wāḥāt of Sudan and other Wāḥāt in that place.

592. A desert is inserted between al-Wāḥāt coast and the country of Sofala. It was reported to me it has mud in it.

593. Its entrance lies in the west seaward; as it was reported by experienced men.

561. But Sofala is separated from Munā of Manāwī and from the residence (88) of the king of Ziṃbāwī,
562. by a walking distance of one mont from Sofala towards the north west, as reported by an experienced pilot.
563. This king governs it to the end of the world. No other peoples are equal to them in the south,
564. but the barbarians or the desolate lands, at the south of al-Wāḥāt, as it may be calculated.
565. I relate what regards the Sudan and the Maġrib, as reported by an experienced man.

60 — [Sailing directions from Kwāma bay to Wāza island].

566. I go back to my first description: to latitude seven fingers of the handle of the Plough at Kwāma, bay understand me.
567. Above Kwāma bay, there is a reef in the east side; beware of it when steering for the land and be sure.
568. It has sands towards the setting of Sirius≢, till you sight it clearly, take my information.
569. It is, o young pilot, opposite to Satāwah, whose inhabitants are barbarian heathens, learn my discourse.
570. Sofala is at latitude six fingers of the handle of the Plough. The islands called Satāwah are at latitude five fingers.
571. At latitude four fingers is Manārah. Maqārah comes next towards al-Qumr.
572. Half of that reef splits into dirts and islets. I indicate all this to you, as was reported to me.
573. But Sofala, the harbor of gold, is ruled by the king of Kilwa, discuss not,
574, I mean the coast, o inquirer, till the center (89) of the gold, take my indication.
575. Above Sofala and the coast, o brother, there is an apparent route to that (90) center of gold, improve your learning.
576. At the southern side of Sofala, o brother, at two days sailing,

59 — [Kwāma bay heathens and their king].

544. Mūma bay on the littoral, is opposite to [northern] Mulbayūnī, whose population is
545. muslim. But at latitude seven fingers of the handle of the Plough, the heathens of Kwāma bay abide. This information was reported to me by an informer.
546. This bay extends far inland and originates from the land of the egyptian Nile. Henceforth are the details.
547. The inhabitants of the region between Sofala and Kağalwah are oppressive heatens.
548. They are called Munā with an additional name, i. e. Munā Batūr, being a great king and what a great pagan!
549. He has the centers of Sofala, because his country bounds on the eastern Sofala.
550. From eastern Sofala, one can perceive the kingdom of the heathens which is next to Sofala itself (85).
551. The great king possesses the lands from al-'Aḫwār to Zanzibar on the continent and in the sea, I myself inquired.
552. He owns the centers of the gold, because they are located in the country of the heathens,
553. with these vile remote inhabitants. The center of Nubia belongs to them.
554. The above people contact each other. A sea separates them. They have a terrestrial boundary
555. extending to the sea shore at the west. Experienced pilots told me about them.
556. They come in baršāt, (86) o courageous pilot, from a land at a distance of seven days, o brother.
557. They wait till they reach the heathens country, rather the western sea, this was reported to me by an informer,
558. who said they come, to dig the copper to pay with it the silver (87) of those dirty inhabitants,
559. from the end of the Frank's country and the West, understand my discourse and profit, my friend.
560. In their northern border, landward, there are some famous islands, in the west, o courageous pilot.

526. But on the 170^{th} day of the Nuruz, you have a unique season, take my guidance.
527. Sail by the rising of Arcturus and the Pleiades seawards, my brother.
528. As it is done from Aden to Ḫūriyā on the Dīmānī, learn the condition of the sea, my pilot,
529. till latitude eight fingers and a half of the handle of the Plough is reached and the wealthy coast attained.
530. Then, you steer for Mulbayūnī and for the coast next to it. No ship goes beyond it.
531. Before you sight Mulbayūnī, you perceive two mountains: one is red, the other white you can see with the naked eye.
532. These mountains guide the pilots when steering for Mulbayūnī; this is a valuable information.
533. They guide them for Musanbīǧī, too. Stay away (84) from the shore to avoid hardship.
534. The sailing journey lasts about one month for all races and creatures,
535. as the voyage from Qalhāt to al-Bawāṭin, al-Ḫawr and Ǧarūn, be intelligent.
536. There is no end for the sailing season from Mulbayūnī to Kilwa, understand my poesy.
537. Mulbayūnī lies at latitude seven fingers and a half of the handle of the Plough for all peoples.

58 — [Open sea sailing from Kilwa to Sofala].

538. If you desire the right course from Kilwa across the open sea,
539. navigate due west and by Canopus≢, I mean its rising, understand my indication,
540. till Mulbayūnī and stay away seaward; then incline to the Scorpion≢, which is your bearing
541. to Sofala, at latitude six fingers of the handle of the Plough. Learn my description.
542. Beware. Take no « deficient » measurement, or you commit a mistake and everybody will forget you,
543. under five fingers and a half which could be the farthest steering point, for fear of the south wind, my brother.

511. Steering for the coast is good from Kilwānī to Kwāma bay, at latitude seven fingers of the handle of the Plough.
512. In good weather, you perceive a high mountain from Mulbayūnī to these steering points.
513. No landmarks, special to that route, can be seen, for sure,
514. unless your course is by the setting of the Scorpion ≢. If you arrive at the bay at nightfall, approach,
515. and cast the anchor till morning, you shall find the inlet boundaries marked by woodlogs on both sides.
516. The fisherman of that region will come to you. Then you enter Sofala. Learn it.
517. In it, you will observe that the altitude of Phad and Megrez is three fingers uniquely,
518. and that the altitude of Alioth and Mizar is exactly six fingers, in the season of the fundamental measurement. Take my description.

56 — [Sailing seasons from Kilwa to Sofala].

519. The best season, o my brother, from Kilwa to Sofala, listen to my information,
520. is from the first day of the Nuruz to the 50th day. Another season is the 20th day of the Nuruz.

57 — [Sailing seasons from Sofala to Kilwa].

521. But if you set out from Sofala, you should do it on the 170th day of the Nuruz.
522. This is the best season of all that might come before and after it, be informed.
523. Before that date, you encounter the disastrous mild W SW wind (83); after it, this same wind becomes strong in these headlands.
524. You should sail eastward to the open sea, because the wind blows from an oppressive and exacting shore,
525. about the 200th day of the Nuruz, o pilot, and the rough sea occurs often in this time.

494. The water flows and rises (80) near the land, o pilot, understand my explanation.
495. Its flow leads you to the southwest according to the experienced pilots,
496. Its tide resembles that of Cambaya. Understand the entry by this indication.
497. Get in it, when the water rises, exactly like in the spring tide of Cambaya.
498. The best steering for the land is at latitude five fingers and a half of the handle of the Plough, for fear of the bad SE wind (81).
499. In case you steer for the coast between latitudes seven and nine fingers of the handle of the Plough, understand my recommendation.
500. The reef is high near Kwāma, recognize it, my brother: this is its sign.
501. But it is low near Sofala. Sail, and commit not a mistake,
502. to Sofala which has nearby landmarks not encountred close to any other place.
503. You perceive in front of you the coconut groves and the mounts of sands as signs.
504. You see the inlet near the emerging embankment, it has a two stretched arms depth, without lie.
505. Enter Kwāma bay during the rising of the water, as it is exactly done in Cambaya bay.
506. The inlet is marked by woodlogs till the bay, they were put by a man hoping a reward from God.

55 — [Coastal Sailing in small boats from Kilwa to Kwāma bay and Sofala]

507. If you desire to set out from Kilwa to Kwāma bay, sail along the shore, o pilot.
508. In case you are in a small boat, you shall follow a fair route to (82) al-'Aẖwār according to your own experience.
509. The winds might veer on your way, my companion; that is why,
510. you should run seaward, my pilot; then steer for Kilwānī.

54 — [Sailing directions from Wamīzī to Kwāma bay and Sofala].

477. But if you set out from Wamīzī, leave the land and the shore seaward,
478. sail one day or four zāms due north and by Canopus ≠. Take my word.
479. Then aim to the Scorpion ≠ and to the Crown ≠, and penetrate in the open sea at nightfall on these bearings,
480. for two or three days, in the well equipped ship passing there.
481. You shall find along your route that the water becomes shallower near the coast, without lie.
482. When you steer for the land ahead, you meet a reef on Kwāma bay, take my indication.
483. Keep that reef at right till you pass it; sail along the coast and follow the shoreline (77)
484. till you reach Sulanyāt which is a reef above Sofala, my friend.
485. All Sofala shores are sandy, o pilot, they have neither mud nor springs.
486. Keep Sulanyāt reef at right till you pass it, o my friend and hurry up to the inlet with joy.
487. Get in the country near this entrance; you shall see it with your own eyes.
488. The water whitens here. The sounding (78) is used till the eastern border of the coast, take my instruction.
489. If you desire to anchor, do it. The land is green, anchor and enjoy it.
490. But the waves inspire fear among the emergent rocks, because they are exposed to the winds, take my advise.
491. The waves might throw you towards Kwāma of the Pagans. Therefore, recognize daylight.
492. In case of necessity, cast anchor in Kwāma till dawn, and beware
493. because most of its winds are southern and the water has a monthly tide (79), my dear

[Chapter IV]
[Coastal and open sea navigations of the country of Sofala]
[Altitudes of the handle of the Plough, Sailing directions, Sailing seasons]
[Land's end, Countries bordering Sofala]

53 — [Coastal sailing from Kilwa to Wamīzī Mulbayūnī and Sofala].

468. If you desire to sail the coast, from Kilwa to Sofala, you should
469. set out, my dear, to Wamīzī, situated towards Canopus ≢ pole, at eleven fingers of the handle of the Plough.
470. Wamīzī is an island whose inhabitants are muslims. The pilots navigate to it by the rising of Canopus ≢.
471. They keep sailing by that bearing (Canopus) till latitude nine fingers of the handle of the Plough, I mean precisely till Šinğağī,
472. whose inhabitants are muslims too but governed by the Pagan. Above it, there is a long ramified reef.
473. Mulbayūnī is seen after Wamīzī towards the south pole; it is the place of silver and ambergris.
474. Mulbayūnī is at latitude eight fingers of the handle of the Plough exactly: I explained it to you clearly, o young pilot.
475. But this latitude is «excessive». Understand these rules I am giving you.
476. Set sail from it to Sofala by the setting of the Scorpion ≢ and incline towards the setting of the Crown ≢, be a perfect sailor.

Improve your course and be courageous.

51 — [Sailing directions from al-Ḥanaš to Kilwa of the kings].

450. Sail to Kilwa from the island known as al-Ḥanaš,
451. due south and by Achernar ≢ absolutely, till you face the northern mountain
452. Then, you shall sight the northern end of Kilwa's reef, close to you.
453. Navigate parallel to that reef till you pass it, and run seaward, you get safe out of it.
454. Al-Ḥanšān island is located at a distance of two zams sailing by Achernar ≢, o pilot.
455. In case you sail along the right side of the reef till it turns, beware of it.
456. Navigate when it turns by the setting of Sirius ≢. Enter not the west of Kilwa which is an unknown place without landmarks,
457. till you pass aside, and Kilwa comes at your left, then you shall enjoy security.
458. and fly the sails of arrival safely. Kilwa of the kings shall be in front of you.
459. Then, keep all the houses of kilwa of the kings
460. in the bow of your ship while you are looking and the people are waiting in the harbor.
461. Congratulations for this wonderful voyage and good fortune before you get the red gold,

52 — [Stellar altitudes].

462. Kocab's altitude is two fingers in Kilwa: it is a correct scientific measurement.
463. In it, the altitude of Phad and Megrez is eight fingers, pay attention.
464. The altitude of the handle of the Plough is 11 fingers and a half exactly, if you sail seaward, it is enough.
465. But at Manfia, guide yourself by Pherkad, I say,
466. when α β Cen are culminating, its altitude is four fingers and a half exactly.
467. And the altitude of the handle of the Plough is twelve fingers «excessive», inform the pilots.

430. Waqūlah is a round island, o brother, with exuberant vegetation which can be seen with the naked eye.
431. Its coast is white. Manfia can be perceived from it. Take my recommendation about it.
432. Before you reach Waqūlah, you meet an island with trees, tall and big.
433. It closes the access to the reef of Waqūlah. Leave all this at left and stay away.
c-434. The name of the southern island is Kilwa Tūnī. The shore is not safe here.
435. In the closed season (72), the pilots sail from Manfia to these two islands, which have routes
436. to Sanǧ Šanǧuwā at your right. Listen to my explanation and understand my purpose.
d-437. Then, they sail parallel to the back of the reef as small boats do, by side wind.
438. All along that distance, the course (73) is at your left. Cast the anchor wherever you wish.
439. The reef has indentations (74) in which the waves break, you may shelter in some of them,
440. as in the main course mentioned for aš-Šarqā island in the north.
441. Know that if you leave Šanǧ Šanǧuwā behind you and at your right hand, you should incline to get out safely.
442. Approach and anchor in al-Ḥanaš island. Set out of it at dawn or at dusk, if you like,
443. because it is the last of these islands in the south. Be informed.
f-444. But before Šanǧ Šanǧuwā, you find many unknown narrow submerged embankments (75).
445. The shallowest is three streched arms deep, without lie.
446. As soon as you leave the embankments, you see the mountains of Kilwa clearly.
447. There are ridges (76) above Šanǧ Šanǧuwā. Beware of them, they are on the route.
448. At the south of al-Ḥanšān island, a reef lie and a rocky ridge stands at its west side.
449. Beware in their neighborhood in the darkness

49 — [Altitude of the handle of the Plough].

413. The Guards can not be seen any more in it and the altitude of the handle of the Plough is truely twelve fingers.
414. The Zang pilots said the handle of the plough altitude is more than twelve fingers. They lied. This is impossible.
415. In Manfia, the elevation of Kocab is two fingers and a half. I measured it with naked eye.
416. The altitude of Pherkad is three fingers and a half, o my brother, and whoever measures it not, shall miss it.
417. I need not measure the culminating star, the Guards admit no other presumption.
418. If Agena and Rigil Kent culminate over the Southpole, measure them, o man!
419. If God lead you, o pilot, to the east, seaward, at the end of the sailing season,
420. when you have sailed from the coast of India, and if you have been drifted by a contrary current,
421. take the corrected measurements, and measure as I said in my recommendation.

50 — [Sailing direction from Manfia to al-Ḥanaš island].

a-422. If you desire to sail from Manfia to Kilwa of the Kings, your course is
423. due south and by Achernar ≢. You shall meet a reef and a nearby small rocky ridge,
424. called Mānǧī by the Zanǧ pilots. The reef extends towards Canopus ≢,
425. till the western side of the island, I mean the famous Kilwa, o young pilot.
b-426. But at the southern side of Kilwa Haswāndū, all the islands lie at your left.
427. There is a route for the traveller between them. When you leave them behind, you see two islands:
428. first Waqūlah which has a long reef extending from its northern side toward its shore,
429. and containing emerging rocks, o pilot, resembling al-Maṭrad, o man.

48 — [Sailing directions from aš-Šarqa' to Manfia].

395. Navigate from aš-Šarqā' to Manfia by Centaurus ≢ Another route goes
396. by the Scorpion ≢ at the beginning. Follow either one, o friend,
397. because there are many shallows (70) you should recognize surely in the middle of that route.
398. Whoever sails from aš-Šarqā' island by Sirius ≢ and Orion ≢.
399. take my word, steers for the islands of the sea called Mašanğūbīlī, as was reported to me.
400. and Wāmalūl—it is the nothern isle— and the southern isle, near Fāmia,
401. is called Flūluwa, and is covered with trees and mud (71). There is a route convenient to my purpose, between these islands.
402. They are considered harbors for every fair wind. The experienced pilot sees them from Manfia.
403. Manfia is an island you perceive ashore from aš-Šarqā', learn that and remember it well:
404. they are near the coast, my friends, like Qays and Hindurābī,
405. In case you have sailed a long way in the open sea and that night had fallen, keep going.
406. When you miss Manfia, harbor in Wāmalūl and Flūluwa, o friend, then tack to and fro
407. and sail by Canopus from them to Manfia. God protect you from the harm of the wreckage.
408. But, there, the sailing direction along the shoreline is due south and by Achernar ≢ o my friend.
409. This course has much dirts. So, incline towards Canopus ≢, o expert.
410. Before you reach Manfia, you shall meet an emergent rock and a reef. Leave not the embankment.
411. Zigzag at left and at right till you reach al-Māšiya. From Māšiya, sail due South
412. to Manfia. Manfia is a good island, with double indentation, triangular shape and population.

b-376. Some pilots leave the reef at right and steer for Manfia steadily.
377. If you like to leave it at your left, sail on the route as you like.
378. Cast the anchor wherever you wish. Before the reef, you perceive on the coast the landmarks
379. of seven roads (68) with people settled in two villages near them, close to a head.
380. Near this head lies a big bay which can be entered and constitutes a good shelter for small ships (69).
381. You may get in it by the south fair wind, till the two villages near the shore.
382. Big ships find not in that bay a suitable harbor for them, as little ships do.
c-383. The two villages may be recognized by their position near the inlet, because they are land marks.
384. It is reported that the northern village is called Šīlī and the southern Mulālī.
385. You perceive from them the reef of the inlet. Get in safely and cheerfully.
386. The depth of the water there is five or six stretchedarms, I mean the average, listen to my description.
387. But at its borders, the water is shallow in the reef itself and near the shore, o companion.
d-388. Before the reef, there is a small island ahead of Kwāla; you can steer for it.
389. If you face it there, be careful, because submerged rocks lie into the water.
390. Beware of it: the swell of the sea breaks ahead on the rocks producing white foam clearly.
391. Kwāla comes next to the submerged rocks, o brother. All these landmarks are at left, take my recommendation.
392. Then, aš-Šarqā' island follows due the south pole.
393. It is called Ikūhāğūndah in Zanğ language. This information was reported to me by an experienced pilot.
394. The sailing distance from the beginning of that course to aš-Šarqa' is one zām, be informed.

46 — [Sailing directions from al-Mašwī island to Sundā islands].

359. and keep going by the rising of Canopus ≢ to the island of al-Kāfir, even at night,
360. for two zāms by fair wind. It is a clean course which has no dirts at right or at left.
361. In good weather, you perceive al-Kāfir and Zanzibar from the top of the mast. Hold on your course.
362. If you desire the sea route straight on, set your course by Centaurus ≢
363. for two zāms by fair wind till al-Fīl head, count the two zāms precisely from the islands
364. called Sundā, whose number is five. Anchor at their southern side.
365. Sundā is their name in Zanǧ language. If you desire them, take my recommendation;
366. al-Kāfir island which is considered one of them, lies far (66) from them, at their southern side.
367. If you wish not to go to al-Kāfir on the outward voyage, leave it; but on the return, you must enter it.
368. The Arabs gave this isle its name, and it is well known.
369. It has always small boats which come from the littoral, be informed,
370. because it is near the shore. In fact, it is ahead Sundā islands, o my friend.
371. The course from al-Kāfir to al-Fīl head is by Centaurus . Al-Fīl head is, o traveller,
372. a cliff on the shore, at the north, o watcher of the course (67), cast the anchor in it and sleep.

47 — [Sailing direction from Sundā to aš-Šarqā?,]

a-373. If you sail by the rising of Canopus ≢ from Sundā' straight on
374. till they disappear out of sight, incline due south knowingly,
375. you shall reach al-Fīl head, then the reef which is the inlet reef. Adjust your bearing and try.

342. It is one day sailing transversally, I mean widthwise, take my indication.
343. But its shape is considered round when calculating the route.
344. It has no true sailing direction. It is difficult to reach. Learn this information.
345. The northern end is called al-Ḥamām and Minšār heads. Learn it.
346. Its southern end, o brother, is called Smākmand, my dear.
347. But the head in the southwest is named Wasīnā head, the experienced pilots reported to me.
348. Stay away from Zanzibar; sail parallel to its coast, and look at it with your own eyes. How wonderful it is!
349. See Māǧa at left, it is a head on Zanzibar coast.

45 — [Sailing directions from Zanzibar to al-Mašwī island].

350. Sail one zam from Māǧa head, you reach al-Mašwī island. It is an islet.
351. You perceive it clearly from Zanzibar. There are many islands at left between Zanzibar and al-Mašwī.
352. Leave them all at left. Cast the anchor at nightfall, o traveller.
353. Al-Mašwī has thick vegetation in the west (64). If you pass by night in this place, hurry up and move away from it.
354. When you face it, tack to and fro a little bit till your course comes by Sirius ≢ and the Crown ≢
355. An emergent rock (65) and a long reef appear above the water near al-Mašwī, at its northern side.
356. Al-Mašwī has an anchorage sheltered against the WSW and SW winds. If you like to anchor in it, approach.
357. Sail from Zanzibar to this island by the rising of Canopus≢, understand my interpretation.
358. If you wish, cast the anchor, or, in case you have nothing to do in al-Mašwī, navigate by the south wind,

324. Wherever the night falls, cast the anchor in water seven stretchedarms deep, or so.
325. Proceed till you have the houses in sight at its described extremity (62).
c-326. Then, you shall see all the isles, o traveler, keep two of them at left.
327. All these isles are at right and in the west of Zanzibar. Cast the anchor in Māšiya island, o my companion.
328. Māšiya is white and a harbor sheltered from the south and W SW winds. Be glorified the Creator and Organiser.
329. In it, Canopus and Capella altitudes are equal, they were verified.
330. The pilots compute them. I measured them there with the astrolabe.
311. I found their altitude 39 degrees as usual.
d-332. These islands are large, I mean al-Ḫadrā' and Zanzibar.
333. Their backside is clean. They lack no water (63). The Guards altitude is one finger between them.
334. The northern end of al-Ḫaḍrā island is at latitude one finger and half of the Guards, and lies opposite to Wāsīnī. This is my description.
335. But the shoreline from Wāsīnī to Zanzibar, is surely directed
336. due south and towards Achernar ≢. It forms dirty reefs. Approach it not.
e-337. Some pilots leave the reef at left, I mean of Wāsīnī, discuss not.
338. Then, They will not have an outlet to the exit near Zanzibar, take my calculations.
339. Many islands lie near Zanzibar, they count about sixteen, learn it.
340. They are located in the southwest of Zanzibar among dirts, o my companion.

44 — [Description of Zanzibar].

341. Zanzibar is a large island, divided into forty ancient townships.

[Chapter III]

[Navigation parallel to the littoral of az-Zanǧ and al-'Ahwār]

[Altitudes of the Guards and the handle of Plough. Stellar elevations]

[Sailing directions]

43 — [Sailing directions from Wāsini to Zanzibar]

a-314. If you set out from Wāsīnī, my brother, hold on the true course

315. due south and by the setting of Achernar ≢, o diligent pilot, till you reach the high Ras al-Ḥamām

316. of Zanzibar which has, be informed, another head at its east side, called Minšār.

317. These two heads are opposite to the southern end of al-Ḫadrā' island, exactly in the east and in the west.

318. There is a route between al-Ḫadrā' and Zanzibār for the pilot travelling to al-Qumr or Sa'da or the isles,

319. by the rising of the Crown ≢ precisely. It is the current of the two sails, my friend.

320. Be careful, steer not for al-Ḫaḍrā island for fear you run against Minšār head, without lie.

321. The pilots avoid the sea between Minšār head and al-Ḥamām head

322. because of the dirts and the submerged rocky crests (61). Incline to the right, you shall be safe.

b-323. When you pass al-Hamām head, sail parallel to Zanzibar. Leave this island at left.

297. *If you stay in that place, you see three submerged* rocks (59), o pilot,
298. little ones, and high, off Mombasa. Look at them in the sea and beware,
299. so you enter the harbor safely, without any doubt, as a pilot sure of himself.
300. Enter Mombasa and enjoy the pleasures of the voyage. Mombasa has the trade and the profit.

41 — [Sailing direction from Barāwa directly to Wāsīnī].

301. If you cross the sandbars of Barāwa, understand my explanation:
302. sail by the setting of Centaurus≢ exactly twenty zams complete.
303. Incline to the setting of Sirius ≢, then to the setting of Orion≢, you see Kalfi's mountain straight on,
304. and you perceive Manǧī and some islands in the far horizon. Navigate and hold on
305. the setting of Canopus≢it is a good heading till you reach Wāsīnī and his passage.

42 — [Sailing direction from Mombasa to Wāsīnī].

306. You sail from Mombasa to Wāsīnī one zam and a half exactly.
307. Then you incline towards the famous Achernar ≢ till morning. Depart not from my advise.
308. I watched and verified it in my testing experiments. Navigate by these courses, you shall succeed.
309. Sail parallel to the west shore of al-Ḫadrā island, because there are dirts (60), o my companion, at the eastern side
310. of its northern end. So beware, sleep not here at night, and stay awake.
311. So is Wāsīnī: it has continuous dirts till its southern tip, o my brother.
312. The Zanǧ pilot said: the dirts extend at its northern end; keep it in mind.
313. But I think this is wrong, o my friend. Listen to my instructions, and you will have the right route.

pilots say Melinda's head appears jutting far in the sea.

282. But the breeze is near above the coast, beware and approach it not.
283. At Melinda, the altitude of the Guards is two fingers and a half exactly, take my description.
284. You see there the beginning of Kalfī's mountain which is followed by Manǧī Hazan, learn that.

39 — [Description of the Magellanic Clouds].

285. All these places are at a distance of two days sailing from Batta, without lie,
286. by the setting of the Scorpion≠ and Canopus≠. Learn that and navigate seawards at nightfall,
287. the ship's bow directed towards the White Clouds, and during the night toward the Dark Clouds.
288. There are two White Clouds, o brother: one is visible to the naked eye,
289. the other one is faint. The position of the White Clouds is between Canopus and Sirius;
290. But it is at a distance of ten fingers from Canopus, listen to my discourse,
291. that is one arrow (57); and at a distance of two arrows from Sirius and you can see both of them in straight line with naked eye.
292. The Dark Clouds are in the Cross, and may be observed at the end of the night, listen to me,
293. in the season in which the pilot of Sawāhil travels, during the Tīrīma (58) and enters Batta's country.

40 — [Sailing directions from Melinda and Manǧī Ḥazan to Mombasa].

294. Minwāfa bay comes next to them, and Mombasa follows south of them
295. at latitude two fingers of the Guards, without lie. It has many visible stars whose altitudes can be taken as references.
296. It is an island, o brother, and its bay is at the north of Minwāfa, learn its explanation.

266. Kitāwa lies at the right side of the inlet, understand my discourse.
267. The land of Lāmū comes at left. Lāmū was an inhabited island in that place.
268. In Lāmū and Kitāwa, the altitude of Spica is observed to be five fingers in the rising, exactly like the elevation of Hamal.
269. The altitude of the famous Spica and Acrux is measured ten fingers. Listen to me.
270. The elevation of Alkaid, Al-Debaran and Capella is seven fingers measured by the naked eye.
271. The altitude of Alkaid and Arcturus is equal to the fundamental measurement. Take these useful instructions.
272. The altitude of Alkaid and Agena is six fingers and a half, learn it.

38 — [Sailing directions from Lāmū and Kitāwa to Melinda and Manği Hazan].

a-273. When you leave Lāmū and Kitāwa behind you, set out to Šaklā, o Friend. Šaklā is a little bay, o inquirer.

274. Beware of it by E N-E wind, o pilot. The land turns certainly at Šaklā.
b-275 and you see, straight in front of you, Zalwīlūl, which is an island, isolated
276. off the coast. Seaward of it, there are reefs which have anchorages sheltered against all winds.
277. After Zalwīlūl, there is a new bay at a distance of Qalmān, beware of it and sleep not.
c-278. Then comes Kalūma head which is an anchorage sheltered from W S-W winds (55) and a southern cold observatory (56)
279. There is not a single course along this shore: you can see many bays and heads.
280. In case you run seaward of themby the Scorpion≢ and αβ Cen≢, sail and try.
d-281. After them, you perceive Melinda first, and some

248. you obtain six fingers and a half in as-Sāriq country and in its islands, learn their position.
249. It is six fingers minus a quarter at Batta. And by five fingers and a half, exactly,
250. you reach Lāmū and Kitāwa, measure it and learn my information.
251. I need not explain it to the reader, I am afraid I might forget any instruction, learn that,
252. because the altitude of Kocab at al-Ḥadd, gives twenty one fingers and a half (51).
c-253. So, use the graduation for al-'Aḫwār finger by finger, for each tiriffa, while sailing,
254. because Kocab culminates (52) above the pole and the pole admits no mistake or lie,
255. but only « excessive » or « deficient » measurements (53). I tested and verified it accurately.
256. I found that its altitude is four fingers plus three, but it is rather approximate, and it is surely approximate in al-Ḥaḍrā.
d-257. In case you see not the Guards here in the season of the fundamental measurement (54) while in trouble,
258. measure the altitude of Kocab and αβ Cen. Take my description,
259. because this measurement is correct for each finger of latitude, and the origin is clear to you. So, make the calculation
260. from al-Ḥadd to Manfia; it would not differ by one finger. This is my indication.
261. If this measurement is possible, do it. And let us return to the explanation of my previous subject.

37 — **[Sailing directions from Batta to Lāmū and Kitāwa].**

262. The pilot going south, from Batta to Lāmū, should follow the littoral and the reefs.
263. The land turns from Batta toward the islands of Kitāwa and Lāmū which have landmarks:
264. I mean high sandbars as true signs, and they have the same inlet in the same bay.
265. But this bay is broad and extends till Wāzīnā, I have been told.

232. First of all, you meet in that recess an island off al-Ǧubb country,
233. at a distance of four zams exactly by south wind (49).
234. Between the island of Šīkā and Malwān, there are also rour or five zams. Memorize my poesy and listen to it.

35 — [Sailing directions from Malwān to Batta].

235. From there to Batta, the distance is six zams, all along the shore. Henceforth is may description,
236. because above Batta, there is an island called Fāza 'alī and it is known by this name.
237. There is a route between Fāza 'alī and the coast; seaward of it, there is a reef extending farther
238. to the neighborhood of Wāzīnā. The inhabitants are like those of as-Sāriq country inland, o vigourous pilot.
239. Off this shoreline, there are countless islands, big ones and little ones, my dear pilots
240. scattered just in the middle of the distance separating Malwān from Batta.
241. The land of Batta is the country of a generous people, and of the cats called az-Zabād.

36 — [Altitudes of the Guards].

242. If you desire to know the stars rising in that region (50), have the famous measurement that never fails.
a-243. At Barāwa, the altitude of the Guards is four fingers as Denebola; it may be seen, this is a sure information.
244. The altitude of β UMi (Kocab), when culminating, is eight fingers and a half without mistake.
245. At al-Ǧubb, it is seven fingers and a quarter. In the country of Malwān, it is on that occasion
246. seven fingers minus a third accurately. Measure it, then you know your route.
b-247. In case you measure the altitude of β UMi (Kocab), the culminating star which is famous among us,

215. You perceive it close to the coast, unless it juts out in the sandbars
216. till the neighborhood of Maqdišūh. But you sight not the nountain in the rain or in the dust.
217. The Arabs call it al-Hīrāb, but it has a stupid appellation in the languages of Zanǧ.
218. I need to see it, I care not for its name, since no other mountain has the same shape.
219. Sail to Maqdišūh and its country; enter it if you like to or continue
220. to Markah, then to Barāwa, you shall come through in one day successively.

33 — [Description of Barāwa].

221. Among other signs, there are seven sandbars off Barāwa.
222. its harbor is on the forth sandbar, stop from anyside you come to it.
223. Enter it safely, away from the rough sea and the reproach.
224. You shall see nearby the harbor an isolated island, high and large.
225. which is an anchorage sheltered from all winds, in the opinion of the expert pilot. Learn its descriptions and infringe them not.
226. Circle the island and cast the anchor in Barāwa. The people will come to you before you reach them.
227. Get in by right bow (47) with the south wind. If you desire to enter, go steadily.

34 — [Sailing directions from Barāwa to Malwān].

228. If you desire not Barāwa, continue your journey. Sail along the coast if you like to.
229. The shoreline is exceedingly irregular (48) from there till the end of Sofala, o experienced pilot.
230. I say till the end of Sofala, o master, be informed, God protect you from the harm of Darkness.
231. Sail ,by the Crown ≠, be not late, till you arrive to the bay of Šīkā, which is well known.

[Chapter two]
[Navigation from as-Sīf aṭ-Ṭawīl towards as-Sawāhil]
[Hīrāb I, Hīrāb II, al-Ǧubb, as-Sawāhil]
[Altitudes of the Guards, description of the Magellanic clouds]
[Sailing directions]

31 — [Sailing directions from Muqbil's shoal to al-Murūt reef].

206. Once you leave as-Sīf aṭ-Ṭawīl behind you, the land deviates from the setting of Canopus ≠, it was reported to me,
207. to the setting of the Scorpion≠ and Centaurus≠. All this bay has soft winds (44).
208. But between that shoal and al-Murūt, there is a mud-bank (45), o my interlocutor.
209. Al-Murūt is an isolated reef off (46) the coast, which wrecks the ship driven to it, take this information.
210. Very often, you perceive not neither this reef, nor the shoal, o pilot — So, stay away from it —
211. because they are ashore and the traveller is seaward far away.
212. The coast between al-Murūt and Muqbil's shoal is divided into low sandbars, take my description.

32 — [Sailing directions from al-Murūt to Barāwa].

213. Past al-Murūt, lie some ridges of coherent sands till aṣ-Ṣanānī. Al-Murūt is 11 « stretched-arms » deep, approach it not.
214. You might see there the mountain extending inland and not high.

30 — [Sailing directions from aṭ-Ṭabqāt to as-Sīf aṭ-Ṭawīl].

201. If you steer from Ṭabqāt to as-Sīf aṭ-Ṭawīl, the coast is visible and you see easely your way.
202. Count on yourself and consult a wise experienced pilot, expert in that route,
203. in all you do, o intelligent man. Expect not anything good from a pilot ignoring the country.
204. All pilots agree the route is completely clean from as-Sīf aṭ-Ṭawīl to Muqbil's shoal (42)
205. which has many crenulations with high spits (43). Learn the landmarks, o pilot.

28 — [Sailing directions from Socotora to Ḥāfūni through the isles].

187. If you whish to pass through these islands, shape your course by the setting of Achernar, it is a good bearing.
188. These travelers routes leave Socotora at left.
189. Incline to [the setting of] Canopus≢ and beware for fear the water might pour in the ship if you keep going straight forward on the original course,
190. and so that the course to Ḥāfūnī becomes remote from its shore for sure.
191. But whoever traverses the islands directly by the setting of Canopus≢,
192. reaches the back of Samḥa and Darza. Beware of the islands harm.

29 — [Sailing directions from Socotora to as-Sīf aṭ-Ṭawīl through the open sea].

193. If you set your course through the open sea opposite to Socotora, leave this island at your right hand when crossing from Ẓafāri
194. till it disappears by the pole in the maritime horizon, and till you can not perceive it unless in fine weather.
195. But these courses lengthen the route. Comply with your own experience, o companion.
196. When you move seaward of Socotora, sail by [the setting of] Centaurus ≢ and incline to [the setting of] the Scorpion, o traveler,
197. till you have the land in sight from Ṭabqāt to ǦirīŠ, take my descirptions.
198. In there, a bar of sand lies, it is a bad bar, take my discourse.
199. Anyway, it is nearer to the sea than al-Hīrāb's region: and it is known as Hīrāb of the sand-dunes.
200. In Ṭabqāt, you will find that the altitude of Arcturus and Hamal is five fingers in the obvious measurement.

173. Nobody else needs another description, unless he is a dull pilot, deprived of eyes.
174. In case you missed the true Guards when the high Denebola is culminating (38)
175. measure Kocab when culminating, it is correct in al-'Aẖwār and involves not any mistake.
176. Its original measurement at al-Ḥadd is twenty one fingers and a half exactly.
177. It is correct, my brothers, I verified it and found it truly true, when it is graduated
178. finger by finger without lie. I measured it four fingers in al-Ḥaḍrā island.

[VIII — Transoceanic lanes from al-'Aṭwāḥ to as-Ṣīf aṭ-Ṭawīl]

27 — [Sailing directions from al-'Aṭwāh to Socotora].

179. I go back to the sea route of al-'Aṭwāḥ and Qalhāt coast, o brother, to the success.
180. Sail along the shore by the Handle of the Plough (39) till you reach al-Ǧumǧuma head, beware of the herbs.
181. Navigate by the setting of Canopus≠which is the basis for you, from the eastern side of that head
182. till you arrive at Maṣīra. Then incline to the [setting] of the Scorpion≠ in any direction you wish and calculate:
183. if it is the 90th day of an-Nuruz, beware of the winds when the rains fall intermittently(40),
184. cross not the sea at the beginning of the currents of air(41). Cast the anchor and decide to stay.
185. If you desire to sail seaward, set out, think and navigate.
186. Cross the sea from Ẓafāri by the setting of Canopus≠, you shall see Socotora which guides you.

was before, and decreases an equal amount without mistake.

158. This is not a measurement for steering upon for land, but I think it would be better to mention it, my brother,
159. because I left not any star in the heavens, I included it not in the guiding stars.
160. And Arcturus and Spica are taken as reference stars when Canopus rises in the heavens.
161. Their altitude is precisely five fingers at latitude Polaris nine fingers as a rule, if Arcturus is the reference star;
162. then Canopus' elevation would be eight fingers plus a quarter, understand my purpose.
163. Whenever Polaris decreases one finger, Canopus' elevation increases, o my brother, Listen to me,
164. three quarters of a finger, as a net result of the measurement, if Arcturus is the reference star. Take my descriptions.
165. And, in a single measurement, Canopus' elevation is seven fingers at latitude Polaris seven fingers, what a wonderful art!
166. Afterward, they increase in each head half a finger and one tenth, learn this measurement,
167. because they are bright stars, I mean Canopus and Arcturus. Take my recommendation.

26 — [Stellar altitudes at latitude Polaris 51/2 fingers].

168. At latitude Polaris five fingers and a half, Acrux is visible. Henceforth, comply with my description,
169. Agena's altitude is seven fingers as a rule, increases not and decreases not.
170. Take latitude two fingers and a half, I mean Polaris latitude for sure.
171. At this latitude, the Cross' altitude is four fingers (37), I mean & Cru near the sea level, listen to me.
172 Also, Arcturus' altitude is four fingers too, I revealed the knowledge to you, o pilot.

144. and opposite to al-Ḥašīš deep. God protect you from dirts and misfortune in it.
145. Sirius altitude is four fingers in the west, Capella's elevation is three fingers by experiment.

24 — [Stellar altitudes at latitude Polaris 8 1/2 fingers].

146. Take the altitude of Castor and Pollux and that of αβ CMi, your reference stars being Castor and Pollux, o pilot,
147. you shall notice that αβ CMi's altitude increases by one third of a finger in each Tiriffa. Improve your measurement.
148. Castor and Pollux' altitude decreases exactly by same without hesitation when αβ CMi are your reference stars.
149. Let it be known, o master, that, in my description, for latitude Polaris eight fingers and a half, you shall find
150. the altitude of Castor and Vega identical to that of the fundamental measurement. Take my useful informations.
151. At the same latitude, the altitude of αβ CMi is five fingers and a half without any diminution.
152. Know that the decrease and the increase in Sirius and in Castor and Pollux' elevation, are normal,
153. I mean half a finger for each head; I need not prolong my description.

25 — [Stellar altitudes of Arcturus and Spica at latitude Polaris nine fingers].

154. The altitude of α Boo & α Vir is, at latitude Polaris nine fingers, in the rising, in my opinion,
155. six fingers for Spica and five fingers for Arcturus. This is obvious and clear.
156. If Polaris decrease one finger, Spica increases half a finger plus one eighth of a finger. Be intelligent.
157. The reference star, Arcturus, stays five fingers as it

130. Steer for the coast without regret and enjoy the security and the safety.

[VII — Stellar altitudes in the sea]

22 — [Stellar altitudes when steering for land].

131. There, Canopus and Arcturus' elevation is eight fingers, test it, o noble pilot.
132. Regulus and Capella are visible in the heavens and their altitude is three fingers, o master.
133. Also, Castor and Vega are seen and their altitude amounts to four fingers and a half. Listen to me.
134. If you desire an accurate measurement for all this long route, o my companion,
135. take the altitude of Spica and Arcturus after you leave the breakers of the sea behind, and remember this elevation.
136. You should truly find them, in their rising, six fingers exactly.
137. Graduate these two stars according to the lengthening of the sailing distance in your voyage. Hold on them to enjoy success.
138. You shall notice in that broad horizon that my measurements are correct. Forget me not.
139. I mentioned these stars' altitudes in the rare 'Urǧūza and in other poems too (36).

23 — [Stellar altitudes at latitude Polaris seven fingers].

140. Measure the altitude of Antares and Agena, at latitude Polaris seven, you obtain four fingers for each of them.
141. There, Capella and Betelgeuse's altitude is three fingers and a half , measure them and be informed.
142. And you see that for both Antares and Rigil Kent the altitude is six fingers accurately.
143. But Acrux and Agena's altitude is seven fingers and a half at latitude Polaris seven

114. There, we precisely measured Pisces and Mirach, o my companion.
115. Measured with one tablet, their elevation is five fingers and a half; I mean in the back of Socotora.
116. There, the elevation of Mirach and Regulus is four fingers and a half normally.
117. These stars are interchangable (33) at Ğardafūn They have many positions in the west and in the east.

118. Measure them at Ğardafūn as you measure Polaris, in the west and in the east, without confusion.
119. But the setting of Pisces takes time in that season, my dear.
120. The traveler complies (34) with these instructions and this is his duty.
b-121. Take the altitude of Arcturus and Canopus ten fingers opposite to Ğardafūn, o winner.
122. You may dispose of Polaris and Kocab: they constitute a good and sure measurment.
123. If you ask for the altitude of Canopus and Agena, it is equal to that of Polaris, learned pilot, and amount to
124. four fingers plus (35); measure it and navigate as the expert pilot.
125. In Ğardafūn head and in Hīlī, comply with my instructions, you shall know the right course.

[VI — Transoceanic lane from Sind to Socotora and az-Zanğ]

21 — [Sailing directions from Sind to Socotora and az-Zanğ].

126. If you set out from the coast of Sind to az-Zanğ, cross the sea and keep looking at
127. the setting of Centaurus≢, then the Scorpion≢, till Socotora; then approach, draw nearer,
128. and shape your course westward, o my friend, steer on it for the land, and incline to the Crown≢,
129. you shall find in the open sea a broad horizon admitting many paths towards the shore. God protect you from shipwrech.

19 — [Sailing directions from Ras-Madwar in Ğūzerāt to as-Sīf aṭ-Ṭawīl].

a-99. If you set sail from Ras Madwar, navigate from Sūmanāt, be quite decided and sleep not.
100. These are good harbors to get in and out for intelligent pilots.
101. Set out from them by the setting of the Crown≢ and the Scorpion≢, till the extremity of as-Sīf aṭ-Ṭawīl, you approach
102. Ğīrīs, which is the beginning of al-Hīrāb in the north, know my conception.
103. Al-Hīrāb ends, o pilot, in Ğardīl in this place.
b-104. But at Latitude Polaris one finger and a half, there is a tongue similar to al-Hīrāb, take my description.
105. If you delay at the beginning of al-Māriza (31) one or two days, to cross it,
106. steer again on the setting of the Crown ≢, o pilot and regain the time you lost because of miscalculation,
107. you shall certainly reach as-Sīf and sail here close to the shore for sure.
108. I need not repeat the measurement, this is what was agreed upon as basis for you.

20 — [Stellar altitudes in Socotora and Cape Guardafui].

109. If you desire more details, follow the coastal route an take advantage of it.
110. Measure Markab, you shall reach the back of Socotora.
a-111. And if you notice the altitude of the handle of the Plough is five fingers, you would have done very good.
112. The name of Markab is al-Farġ with Ġayn [in Arabic], said ad-Damīrī (32), without any fancy,
113. in his Minhāğ exegesis, o pilot, and in another book as was reported to us.

83. Measure the altitude of Rigil Kent and Antares with one tablet, and admire the deed of my God.
84. At latitude Polaris six fingers and a quarter their elevation is seven fingers and a half, understand this fact in the art of navigation,
85. because they had always been, at Mahāyam, at latitude Polaris nine fingers, four fingers.
86. So, their altitude increased by three fingers and a half. Measure it on the basis of this explanation.

17 — [Stellar altitudes of Antares and Agena].

87. If you measure the altitude of Antares and Agena at Zağad, you obtain four fingers constantly.
88. You should know the change in Antares elevation and understand it in comparison with that of Rigil Kent.
89. The motion of Rigil Kent and Acrux resembles that of Polaris for each finger,
90. but it differs in fact in all the climate by one quarter of a finger. It is an amazing calendar.

18 — [Stellar altitudes of Sirius and Capella].

91. In case your reference star is Sirius, Capella shall decrease when moving,
92. in each headland four fingers plus; both stars are in the west, o chief.
93. Also, if your reference star is Capella, Sirius shall increase by the same.
94. Test them for a longer period, steer not for the land on them, verify them o recorder (30).
95. At Mahāyam, their altitude is said to be two fingers, but you better add half a finger to this figure.
96. When you reach latitude Polaris seven fingers, Sirius will stand five fingers plus,
97. and Capella shall not increase or decrease above or under two fingers and a half, o praised pilot.
98. Learn the principles of the measurement in the sea, teach them not to all the pilots.

15 — [Stellar altitudes of Rigil Kent and Acrux].

68. Measure Rigil Kent and Acrux, which are known to all pilots and to me
69. when the stars of the Crow culminate exactly with the mansion of al-ᶜAwwā;
70. This measurement would be rather good when Acrux is in horizontality with Rigil Kent and can not be taken when it is in horizontality with Agena.
71. Acrux altitude is three fingers three quarters at al-Ḥadd; γ Cru is then in high altitude in the heavens (26),
72. there and its elevation is seven fingers and a half plus (27). The fundamental measurement should be taken on β Cru.
73. But β Crucis' elevation is « excessive » (28), steer on it and tell all other pilots.
74. Know that it is nine fingers and a half at Māmī, graduate this difference intelligently.

16 — [Stellar altitudes of Antares and Rigil Kent].

75. If you measure Antares and Rigil Kent at Mahāyam, you shall obtain four fingers as usual,
76. till you come opposite the inhabited land (29), o vigourous pilot, at latitude Polaris six fingers and a quarter. This is my estimate.
77. Antares stands constantly four fingers. Take the famous Rigil Kent, at his setting,
78. its altitude would be six fingers and a quarter as the fundamental measurement. Measure it and listen.
79. The measurement of the rising and setting stars is subject to controversy.
80. It may be defective. Nobody knows it, but the expert erudite pilot who wrote about it,
81. except in as-Sīf aṭ-Ṭawīl, I mean the coast of az-Zanǧ, o my friend.
82. I mentioned these stars to teach you the celestial, spheres and the motion of these loudable heavenly bodies.

elevation is eight fingers, improve it as the prudent pilot (23) does,

54. and know that Mizar becomes like Polaris conventionally.

13 — [Stellar altitudes of Polaris and Rigel].

55. If the altitude of Polaris is ten fingers, when the elevation of your reference star, Rigel, at Mahāyam, is
56. three fingers plus, measured by the tablets (24), reckon for the decrease in Polaris' altitude
57. an increase of one finger in Rigel's elevation for each diminution of one sixth of a finger. I measured this, listen to me.
58. But Capella altitude is ten fingers exactly without any decrease or increase. Take this utility.
59. Measure it in all the coast of India. In this way, I intend to comply with the rules.
60. But if your reference star is Rigel, Capella's altitude decreases in all horizons
61. at every headland three quarters of a finger. Learn the rules of the Art of navigation about the fingers.

14 — [Stellar altitudes of Cappella and Betelgeuse].

62. Know that Capella and Betelgeuse are visible at latitude Polaris seven fingers. Measure them precisely (25).
63. Their altitude is eight fingers in the west, when measured with one tablet. Take this measurement and reckon it.
64. Whenever Polaris decreases, you notice that Capella decreases, in the opinion of all pilots,
65. two thirds of a fingers in the west. Learn it. I mentioned it in my poesy on the basis of my own experience.
66. If the altitude of your reference star, Capella, is eight fingers verified,
67. Betelgeuse elevation increases three quarters of a finger in each Tiriffa, o my colleague.

39. the big number of Ǧarbūb, birds and fishes, and current, o my assistant.

[III — Transoceanic lanes from Concan to as-Sīf aṭ-Ṭawīl]

11 — [Sailing directions from Dābūl in Concan to as-Sīf aṭ-Ṭawīl].

40. In case you set out from Dābūl, follow my instructions and accept my opinion.
41. Navigate from it by the setting of Sirius≠till Polaris becomes clearly
42. seen, decreases not and increases not; then set course on [the setting of] the Crown≠exactly,
43. you shall reach as-Sīf aṭ-Ṭawīl, safely and beautifully,
44. between Ṭabqāt and Muqbil's shoal. Move ahead and advance, if you perceive not the land
45. because of the strength of the water and the wrong course, in case you are expert in that sea,
46. whose signs had already been mentioned. Hereafter is the explanation of the measurements.

[IV — Stellar altitudes in indian points of departure]

12 — [Stellar altitudes of β γ Ari and Mizar].

47. It is useful to improve the steerings for the land in all places, o pilot.
48. First of all β γ Ari and Mizar; their measurements are valid in all horizons.
49. But their altitude shows « deficient » values (20) in az-Zanǧ coast — I previously mentioned this fact —
50. and « excessive » ones in the second climate (21). Listen to my valuable discourse.
51. Their altitudes at Dābūl resemble that of Polaris, i.e. eight fingers without any doubt.
52. Whenever Polaris decreases one finger, they decrease half a finger. Measure them and listen.
53. If β γAri are your reference stars (22) & their

23. if you steer to Gūzerāt or travel to Ẓafārī or Qalhāt.

9 — [Sailing direction from Calicut in Malabar to Zanzibar].

24. Whoever travels to Zanzibar, should make a decision about the wind and the courses.
25. His sailing season is on the 70th day of the Nuruz (17) and his arrival at destination is on the 80th day.
26. Whoever departs on the 90th day, reaches not his destination, unless it is in rare exceptional years.

[II — Transocenic lanes radiating from the Laccadives]

10 — [Sailing directions from the Laccadives to the coast of Zanǧ].

27. When you had flown the flag of the Laccadives on your journey to az-Zanǧ (18), take my advise:
28. navigate due West≢and by Orion≢tσ as-Sīf aṭ-Ṭawīl. Then steer (19) for the land while on your way.
29. You shall find that the altitude of Canopus and Achernar is six fingers and a half, be informed.
30. If you see you have exactly this elevation, point due west, hold on it, and hide not.
31. Then, you perceive β γ Ari with Mizar in the west, take my experience;
32. their elevation is four fingers and three other fingers added to them.
33. Set your course according to these altitudes, when steering for the coast, be intrepid.
34. Sleep not when you sail ahead for land, otherwise, you shall find yourself drifting ashore.
35. This coast has no landmarks, but you always see al-Munǧī.
36. The master runs out seaward for a distance of twenty zams, o pilot, in the typhoon.
37. When you observe a multitude of Munǧīs, beware of the land, you shall enjoy salvation.
38. Every pilot has its own management, based on his knowledge of the courses, his insight,

8. and set your course on [the settings of] Orion≠and Sirius≠according to the force of the wind during your voyage.

a-9. In case the wind is favourable and fair (7), Kaffīnī is the obvious route, on a true course,

10. along a distance of twenty zams (8) in all. Count them. Then, the west wind drops on the bow,

11. at the northern ad southern sides of the Laccadives. This is what is meant by « al-fal » or reaching the midway of the route. may God protect you from the rough sea (10).

b-12. In case the west wind is contrary to the course of the ship's destination,

13. or the sea is rough, or, a typhoon(11) arises, or the rains fall, the pilot should manage in his trips.

14. No need to tell the master what to do. Tack to and fro (12), you will catch the wind. Hold on your course.

15. Leave not polaris. Ply off and on (13) towards the north, if you had not passed the latitude three fingers exactly,

c-16. Which is that of the island of Kaffīnī, taken by the naked eye. The positive evidence for you

17. is the fact that the altitude of Alkaid and Hamal amounts precisely to seven fingers minus a quarter of a finger,

18. and that Arcturus and Hamal appear in the east and have an elevation of six fingers plus (14),

19. and if their elevation is six fingers minus (15), measured with the naked eye, you would be proceeding to the island of Malakī and the rain will fall on you.

20. In case you are cought in the shower, keep on the bow (16), leave not Polaris and tack about seawards,

21. so that you might avoid the damages of the rains, rough sea and seasons.

8 — [Sailing directions from Calicut in Malabar to South Arabia].

22. Navigate by Arcturus≠, then Vega≠, till Polaris increases one finger-plus,

AS-SUFALIYYA

[Chapter One]
[Transoceanic lanes across the Arabian Sea]
[Their convergence towards as-sīf aṭ-Ṭavīl]
[Stellar altitudes connected to them]
[Sailing directions]

5 — [Thanks be to God].

1. Thanks be to God who brought the mankind into existence from nothing. God be exalted, the Eminent and Sublime!
2. The human race failed to know his qualities. How many bounties of His do we sight in the sea!

6 — [Subject of the 'Urǧūza]

3. He vouchsafed us graciously the measurements and the sailing directions (5), we use when navigating at dawn and before daylight,
4. from the coasts of Calicut, Dābūl, Ǧūzerāt, Diūl,
5. Harāmīz and 'Aṭwāḥ, Follow the routes made by my Creator, o my friend,
6. When you proceed to as-Sawāḥil, to the regions of al-Qumr and to Sofala. Listen to me and sail

[I — Transoceanic lanes radiating from Malabar]

7 — [Sailing directions from Calicut in Malabar to the Laccadives].

7. from Calicut's coast to the Laccadives, from latitude Polaris two fingers to latitude Polaris three fingers (6),

IN THE NAME OF GOD, THE MERCIFUL AND BOUNTIFUL

[PROLOGUE]

1 — [Thanks be to God].

Thanks be to God, God of all peoples. God's blessings and peace be with Muḥammad, his family and companions, all!

2 — [Name of the 'Urǧūza].

This is the 'urǧūza, called « AS-SUFALIYYA ».

3 — [Scope of the 'Urǧūza].

Its matter implies the knowledge of the courses (1) and the measurements (2) from Malabar, Concan, Ǧūzerāt, Sind, 'Aṭwāḥ, to as-Sīf aṭ-Ṭawīl, and from as-Sīf aṭ-Ṭawīl to the regions of as-Sawāḥil, az-Zanǧ, Sofala, al-Qumr and its islands. It includes also advanced learning about everything in all above countries till the end of the land in the South; the mention of measurements used by the pilot to observe the decrement and increment of all points of the compass (3); and the description, along the routes, of the measurements, the sailing directions, the courses, the habitants of the countries and their kings, their sailing seasons and their voyages as it befits the place and the journey to it.

4 — [Author of the 'Urǧūza].

It is composed by the fourth (4) of the three [lions of the sea], the pelgrim of the two Holy Mosques, Šihāb ad-Dīne Aḥmad bin Māǧid. the mercy of God be upon him. Amen.

PART TWO

AS-SUFALIYYA

« THE POEM OF SOFALA »

Translated from

the arabic established text

of Sofala with the « harbor of gold » itself is ruled by the king of Kilwa (verse 573 ET). That is why — at least apparently — he focused on the maritime links between Kilwa and Sofala through al-'Aḫwār or across the open sea and on the sailling seasons from Kilwa to Sofala and vice-versa. One paragraph of 23 verses is consecrated to a poor sketch giving the names and the latitudes of some place located between Kwāma bay and Wāzah: Sofala, Sitāwa, Manāra, southern Mulbayūnī, Malābatī, Saduwa islands with Wašīkā inclusively. The remaining verses reports some vague or imaginary so called details about the populations and the kingdoms at the borders of the country of Sofala lying at the limit of the land's end in the South.

5. Navigation between the East African coast, al-Qumr and the islands

The last part of as-Sufaliyya outlines the navigation between the islands lying seaward of az-Zanǧ, al-'Aḫwār and Sofala. First, the location of these islands is briefed. Then, the altitude of the handle of the plough is given for five of them: al-Qumr, Anǧazīǧa, Damūtī, Sa'da and Linǧānī. Afterwards, the sailing directions and seasons between the East African Coast and the Isles are developed.

As-Sufaliyya ends by a short epilogue, praising its science, giving the number of verses in it and asking God to bless the Prophet.

2. Navigation parallel to Hīrāb I and II, al-Ǧubb and as-Sawāḥil

The second part of as - Sufaliyya deals with the navigation from as-Sīf aṭ-Ṭawīl to as-Sawāḥil inclusively. It develops the sailing parallel to the shorelines of Hīrāb I and II, al-Ǧubb and as-Sawāḥil. The prominent landmarks or physical features in the sea or in the shores are specified and enumerated, such as the reefs, the banks, the shoals, the bays, the creeks, the mountains etc... The main harbors and anchorages or islands are examined one by one: Barāwa, Malwān, Batta, Wāzīnā, Lāmū, Kitāwa, Melinda, Zalwīlūl, Manǧī Ḥazan, Mombasa and Wāsī-nī. The sailing directions are indicated gradually. Sometimes the altitudes of bright reference stars are given. It should be noticed, too, that the elevation of the Guards and the description of the Magellanic Clouds are detailed here and constitute two highly important paragraphs in this section.

3. Navigation parallel to the litoral of az-Zanǧ and al-'Aḫwār

The third part of the Poem of Sofala treats the navigation parallel to the littoral of Zanǧ and al-'Aḫwār. The littoral of az-Zanǧ extends from latitude two fingers of the Guards to latitude ten fingers of the handle of the Plough where al-'Aḫwār begins and streches till latitude 7 fingers of the handle of the Plough. As in section II, the landmarks and sea features such as the mountains, headlands bays, reefs, shoals, shallows, banks, embankments, islets are described in some details. The ports, harbors and their islands are enumerated from north to south: Zanzibar, al-Mašwī, Sundā including al-Kāfir, aš-Šarqa', Wāma-lūl, Flūluwa, Manfia, Kilwa, Haswāndū, Waqūla, Kilwa Tūnī, Šanǧ Šanǧuwa, al-Ḥanaš, Kilwa of the kings. Stellar altitudes of the Guards, the handle of the Plough and some bright stars are given in some instances. In all cases, the sailing directions are indicated.

4. Navigation parallel to the coast of Sofala

Part four of as-Sufaliyya is devoted to the navigation of the country of Sofala, that is from latitude seven fingers of the handle of the plough (i. e. Kwāma bay) to latitude two fingers (the island of Wāzah). In fact, Ibn Māǧid believes that the coast

the residence of the king of Zimbawi is a center of gold and a region of slave traders. Another pretends Ibn Māğid heard an original news without telling what it was. Two others repeat literally the verses 29 and 30 of folio 92 r (521 and 522 ET). The remaining three are meaningless.

* * *

So far, the false verses had been identified. It was shown they involve anachronism, repetitions, errors and a very limited number of meaningless verses. All are then superfluous and none of them would leave any gap if deleted. This is an additional proof of their falsity and intrusion. Our immediate obligation is to cut them out and obtain a neat Sofaliyya, free from falsification.

III — The « unfalsified » Sofaliyya

The true Sofaliyya of ibn Māğid is a well structured poem. In it, the East African Coast is divided into three major zones, within recognized limits given in fingers of latitude: first fingers of Polaris at the northern end, then fingers of the Guards in the middle, and finally fingers of the handle of the Plough in the South. Again, these latitudinal zones are subdivided into minor geographic « belts » referred to by their local appellations. A prefatory section precedes them all and explains the maritime links between East Africa and the Indian Ocean Coasts.

1. Transoceanic lanes leading to East Africa

At the beginning of his poem, Ibn Māğid shows how the ships sail from the indian shores and reach the northern part of East Africa, namely as-Sīf aṭ-Ṭawīl, through transoceanic navigation. In fact, he ignores the Indian Ocean east of Cape Comorin as well as the departure from Aden. He confines his presentation to the coasts of the Arabian Sea. Five principal « lines » of navigation are outlined: the transoceanic lanes radiating from Calicut, Dābūl, Sumanāt, Diul-Sind and al-Aṭwāḥ. All these sea routes converge either towards Socotora, then to as-Sīf aṭ-Ṭawīl, or, directly towards as-Sīf aṭ-Ṭawīl. The sailing directions — points of the compass — are given for each lane. So are the altitudes of the stars, visible when sailing along.

some heads in India and Arabia: the context supposes they are in Bears' fingers, whereas they should be in Polaris' fingers, and so on. Again the ignorance of the inserter is perceptible and in full contradiction with the knowlege of Ibn Māğid. Thus, apart from any arguments given to point out the fallacy of all above insertions, they turn out to be unreasonable and illogical.

3 —*Varia*

Insertion 16 is an inconsistent and vulgar display of mythical phenomena and of ordinary performances, considered as achievements, attributed to Ibn Māğid who is humiliated, and by whom? by himself! The words and the style are not his in this passage which is intruded in the sailing seasons of al-Qumr and make the intercalation irrelevant.

4 — *The Nile's branches*

The subject of the Nile's branches is amazing. It is reported two times: once in f.93r, 11-16 (between verse 559 and 560 ET), and in f. 94r, 22-27 (verses 596-600) that means after 36 verses in the original work and in the English translation. Now, which presentation should be retained ? Obviously, the second one, because it is connected to the so called Nile's Mountains in the precedent verse (595 ET) and in harmony with the views of the Arab Geographers, while the falsified passage is alien to the sequence of the speech and confuses the Nile's branches, their names and their arrangement.

5 —*The Land's signs*

The subject of the land's signs is also very strange. Ibn Māğid reports the informations given to him by an expert pilot about the islands « at the east » of al-Qumr, relates the « wave of the cross » and describes the isles' distribution throughout the sea. Here comes the insertion 13 about the birds and the fishes, so numerous that the pilots might believe they are in the sea (sic) or have mountains under them in the sea (sic), while the logic conclusion should be they are approaching the land.

6 — *Miscellanea*

The last five insertions compris seven verses. One of them splits a clause into two parts and interposes between them that

Moreover, it is said, in insertion 6, that the invincible Portuguese improved the Navigation. In insertion 10, the Portuguese science is praised again. So it is in insertion 17. All these allegations are in absolute contradiction with the character and pretention of Ibn Māğid who always considered himself the unique genius of his time in navigation, and an outstanding author for the future. « I swear twice by God, he said, it is most probable, in my deep hard think, that the pilots will leave all the writings of the ancient and new navigators and rely upon my says in poetry and prose, to improve themselves to the extreme and final degree » ([1]). Also, he pretends that « if his inventions for steering ahead for land prove to be true, he would feel alive in his grave; if anything is wrong with them, he wouldn't be mistaken, but a shake would have moved the stars in the sphere of the heavens, whithout any doubt » ([2]). Would such a man recognize any superiority for anybody else? I don't think so.

2 — *The Stars of navigation*

The subject of some stars of navigation is incredible too. Eleven verses, in three insertions, are consecrated to it. Two of them say that Arcturus and Spica are seen from Zanzibar to the island of al-Mašwī ·They are meaningless repetition, since the measurements of these stars and the latitudes where they may be used, have been given in details in verses 154-167 of the English translation.

Two other verses tell about the coastal navigation by Canopus and stress at the same time upon the necessity of anchoring day and night near any reef encountered. They cut a clause into two halves: second hemistich of verse 470 ET and first hemistich of verse 471 ET. Besides, the first verse repeats the idea of the 2d hemistich of verse 468 ET in his first hemistich and takes, word for word, the 2d hemistich of verse 470 ET.

The seven last verses are intercalated in a long passage explaining the latitudes — by means of the Bears — of different islands between Madagascar and the African coast. They give a wrong reference to al-Ḥāwiya and mention the latitudes of

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(1) Al-Fawā'id, p. 162, l. 6-9

(2) The Golden Poem, verses 7-8

If the insertions are arranged according to their subjects, they fall in six items enumerated as shown in the schematic outline below.

SUBJECTS OF THE INSERSIONS

Subjects	n.° of verses	insertions n.°
1. Franks............................	69	3-6-7-8-9-10-14-17
2. Stars of navigation	11	1-2-11
3. Varia	9	16
4. Nile's branches..................	6	4
5. Lands's signs.....................	4	13
6. Miscellanea	7	5-12-15-18-19
Total..........................	106	

1— *The Franks' subject*

It is obvious that the main subject of the insertions interests the voyages of the Portuguese to India. The simple mention of these events, occurring after 1497, in a poem composed before 1489 (895 H.), is a chronological misplacing. It is an anachronism that proves the ignorance of the inserter.

Besides, the dated events, related in the falsification of as-Sufaliyya, came about in 906 H./1500 A.D. (arrival to Calicut-may be Cabral? — and definite settlement of the Portuguese in India?) and in 919 H./1513 A.D. (The Franks' expedition — double attack of Aden and the Great d'Albuquerque?), that means when Ibn Māğid was not only retired long ago inside Arabia, but certainly dead. This is a fantastic account, not only an anachronism. The extravagant fantasy of the falsifier is striking also when he pretends that the Portuguese went to the island of Wāzah in 900 h./1495 A.D., stayed two years there, then proceeded to India, or when he tells that they wrecked off the coast of Sofala on the feast of St. Michael, i. e. on the 8th day of November in the East.

These evidences imply the existence of an alteration in as-Sufaliyya. This modification is materialized in the uneven addition of 106 verses throughout the original text. It forms a falsification involving the insertion of extraneous passages which should be identified in a next move.

II — Identification of the extraneous passages

On the basis of various criteria, it was possible to recognize and pick out 19 insertions from as-Sufaliyya in the photocopy. They are shown in the list below.

LIST OF FALSE INSERTIONS

Insertion n.°	number of false verses	subject	position in the photocopy	position in the english transla. between
1	2	Arcturus & Spica	89v, 13-14	350-351
2	2	Canopus	91v, 7-8	470-471
3	4	The Franks	92v, 4-7	525-526
4	6	Nile's branches	93r, 11-16	559-560
5	1	Gold's center	93r, 19	561-562
6	29	The Franks	93r, 24-34 to 93v, 1-18	565-566
7	1	The Franks	94r, 2	585-586
8	9	The Franks	94r, 12-20	594-595
9	1	The Franks	94v, 13	619-620
10	22	The Franks	94v, 25-34 to 95r, 1-12	630-613
11	7	Stars altitude	95r, 24-30	641-642
12	1	Meaningless	95v, 14	666-667
13	4	Land's signs	95v, 20-23	670-671
14	1	Franks	95v, 29	676-677
15	2	Sailing season	95v, 32-33	677-678
16	9	Varia	96r, 4-12	688-689
17	2	The Franks	96r, 15-16	690-691
18	2	Arrogance	96r, 19-20	692-693
19	1	Claim	96r, 22	693-694
Total	106 verses			

author — may be more — composed the extraneous interpolated passages whose heterogeneity betrays them: their dissimilarity keeps them isolated and their alien expression and subject set them apart among the authentic verses.

Every time a group of verses is added, a cut is noticed, with a style and a spirit different from those of Ibn Māǧid, and, often, with meaningless presentation of incorrect events or void phraseology or inconsistent sentences. Looking over f. 94 v and 95 r, the reader feels lost from line 25 of f. 94 v to line 12 of F. 95 r: he was following Ibn Māǧid in his description of the « Gold Center » near Sofala and he suddenly found himself going about, back and forth, from Portugal through the Atlantic and the Indian Ocean to Malabar; then put back in Sofala and told about the « islands »; then making a roundabout on the indian and arabian coasts and in the « unknown seas »... (f. 95 r, 24-30); then brought back again to the « islands ».

So, the disruptions are obvious and throw as-Sufaliyya into an abnormal suspect disorder and confusion, not found in any of Ibn Māǧid's 24 known nautical poems, that never digress from their fundamental subject: the only kind of ordinary departing from the essential aim in them would be one verse or more in which Ibn Māǧid is delighted to show his arrogance, his pride of himself, his skill or his science, and his disdain to other pilots. Apart from this euphoria, any poem of his deals entirely with a definite nautical matter assigned to it. Ibn Māǧid can not derogate in as-Sufaliyya from the standard exposition, he freely compelled himself to follow in all his versified writings.



In a partial conclusion for this section, it must be admitted that some undeniable facts have been revealed: first, as-Sufaliyya was composed a long time before the Portuguese went to India; second, Ibn Māǧid was too old and retired inland in Arabia when they set sail to the Indian Ocean; third, the Arabs in Arabia knew nothing about the Portuguese before their coasts were attacked by the Franks; fourth, the number of verses of as-Sufaliyya is 701 verses incontestably; fifth, and last, the structure of the Poem of Sofala is deeply disturbed in the photocopy of Leningrad.

itself — even if it is very near — is never tolerated and this is not the case here either.

This way of giving the number of verses of a poem is used by Aḥmad bin Māǧd in al-Ḥāwiya, too. He said in the chapter XI of that poem, in the verse 95: « All of it (al-Hāwiya) is made of one thousand and eighty; it exceeds that (=1080) by two verses. Then, the number would be complete »: (ǦAMĪ'UHĀ ALFAN WA ṮAMĀNĪN'ATAT; TAZĪDU BAYTAYNI LIḎĀKA, QAD WAFAT ». Thus, the determination of the exact number of verses and the wording are similar in both cases of al-Ḥāwiya and of as-Sufaliyya. The unique divergence is the different number of verses mentioned.

So, there can be no doubt about the authentic verses of as-Sufaliyya, and it is established definetely that they are 701 only, and clearly.

Consequently, the number of verses of as-Sufaliyya had been alarmingly exagerated and 106 false verses have been inserted between the 701 true verses to make the 807 verses included in the photocopy.

5. The doubtful unity of as-Sulfaliyya in the photocopy

When examining closely as-Sufaliyya in the photocopy of Shumovsky, the reader feels unmistakably the breaks in the continuity of the poem. The striking example among many others is the folio 93. The subject dealt with in it is Sofala. All of a sudden comes a long digression of 29 verses about the Franks, their country and the northern lands, preceded by two shorter digressions of one verse and 9 verses explaining the branches of the Nile mentioned in due place later on: that means 39 dubious verses out of a total of 71 for the entire folio.

Thus the verses of the poem of Sofala fall into two classes: a coherent group elucidating the navigation along the East African Coast and a disparate and disconnected category inserted unequally between the first one.

Nothing is surprising in this broken structure of the sequence of the original 701 verses of Ibn Māǧid: a new

1498 A.D./904 H. — Lisboa 1499 A.D./905 H.), or, the expedition of Pedro Alvarez Cabral in 1500 A.D./ 906 H., or, the expedition of Da Nova in 1501 A. D./907 H., or., the second voyage of Da Gama in 1502 A.D./907 H.

This means that the Arabs in Yemen, Mecca or elsewhere in Arabia, never heard any news about the Franks (Portuguese) until the end of the month of Ša'bān 913 H./1507 A.D. and until they fought against them in 919 H./1513 A.D. that is in a date when Ibn Māğid was 80 years old or dead, and a long time after the composition of as-Sufaliyya which could not logically mention any news not known throughout Arabia even by the contemporary chroniclers.

4. The number of verses in as-Sufaliyya

Another evidence which should be stressed upon, is the number of verses in as-Sufaliyya. When counting the photocopy of Shumovsky, the number found is 807 verses, in spite of the number 805 in the Russian translation.

Anyway, the true number of the verses of as-Sufaliyya is only 701 versès as stated, word for word, in verse 17 of page 96 r (691 of the ET): « It (as-Sufaliyya) has seven hundreds, it exceeds them (the seven hundreds) by one verse. Learn it from Aḥmad as-Saᶜdī», The first hemistich of this verse is composed, grammatically speaking, of two clauses: one is formed of the pronoun « it » — HĪ — whose antecedent is as-Sufaliyya in verse 13 of the same page 96 r (689 of the ET) and the cardinal number « seven hundreds » — SAB'U MĀYA —; the other contains three terms: « one verse » — BAYT —, the verbe « exceeds » — TAZĪDU — whose subject is as-Sufaliyya and « them » — 'ANHĀ — where the pronoun refers to seven hundreds. These two clauses should be separated by a coma or by a full stop in the following way: « HĪ SAB'U MĀYA, BAYT TAZĪDU 'ANHĀ ». It is absolutely wrong to put it like this: « HĪ SAB'U MĀYA BAYT, TAZĪDU 'ANHĀ »: it is seven hundreds verses, it exceeds them, because this construction would be so vague that it would mean nothing and would not indicate any number. The rule in Arab poetry is to give the exact number or to abstain from alluding to it, the approximation

al-Muḥarram, the news, disseminated in Yemen, said that 18 Portuguese ships came to the city of Aden. The Sultan 'Amer sent an army to Aden, and instructed the yemenites to attack the Franks in the prayers in all the mosques and in the friday's sermon. The Franks arrived at Aden on friday, the 7th of the month of al-Muḥarram. The Prince enjoined the inhabitants of Aden to neglect them, reinforce the defences in the town and be firm. Later on, the Franks set ashore with ladders they made and put on the lowest part of Aden's enceinte. They climbed on the ladders and some of them entered the city. Then, the Prince gave the order of the counter-attack and the counter-assault began. The ladders were cut. Some Franks were killed and four captured. The Franks were defeated by the bounty of God and they were convinced they were unable to conquer Aden. So, they set their ships out of the port because they were afraid of being assailed. They sailed in the direction of Bāb-al-Mandab Strait, passed opposite to Muḫā and al-Baqᶜa, but did not enter any of these anchorages. They proceeded to Ḥudayda and tried unsuccessfully to control it. Then, they went to Kamarān, occupied and plundered it at the beginning of the month of Ṣafar, and killed the Sultan's representatives including the noble Muḥammad bin 'Abdul-'Aziz bin Sufyān. Afterwards, they returned to aš-Šiḥr... After the sack of Kamarān, they Sailed to Aden. Two of their ships steered to Zayla', burned all the ships they found in its harbor and rejoined their companions, gone to Aden. They failed to submit that town. They gunned it, burned some houses and killed some people in the market. The inhabitants of Aden were engaged in a violent war against the Franks, and wounded many of them. The muslims won the victory by the bounty of God. The Franks left Aden's harbor on the first day of Ğumāda al-'Ūlā » (1).

Thus, the chronicle of Ibn Muṭahhar, consecrated to the great events occurring after 900 H. (2), says nothing about the first voyage of Vasco da Gama (1497 A.D./903 H. — Melinde

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(1) Ibn al-Muṭahhar, f. 15 r, 7 to F. 15 v, 7.

(2) The full title of the work is: « The Peace of the Soul, on the great rebellions and conquests occurring beginning 900 H ».

He was still alive in 906 H./1500-1501 A.D., and far away from the Indian routes. He showed no sign of existence after that date.

This patent testimony of Ibn Māğid himself excludes the possibility of any meeting with him outside Arabia-where he retired-after 900 H./1495 A.D., and any mention by him, in his precedent writings, of any historic event occurring in the future, that is after the beginning of the 10^{th} century of Hegira.

3. The dates of the first Portuguese voyages to India

The portuguese voyages are mentioned in the Arabic Chronicles contemporary with them. It is not necessary to go beyond 920 H./1514 A.D., since Ibn Māğid was certainly dead long before that time limit, even if it is supposed he had 75 or 80 years or more, when he departed (born 825 H./1421 A.D.).

I believe it is enough for the purpose of this brief analysis and for the period 900 H. to 920 H., to review the chronicle of Ibn al-Muṭahhar, a yemenite historian (+ 1048 H./1638 A.D.) who is expert in the events of this century. He gives the following informations about the Franks in the Indian Ocean and outside it.

He mentions the conquest of Andalusia by them (1) for 906 H./1500 A.D. We are not interested in that subject.

He says about the historic events of 913 H./1507 A.D.: « The Prince Ḥusayn left for the port of Deccan because of the Franks, who appeared in the sea, committed piracy and took every ship by force. In that year, they conquered and subjected the town of Hurmūz. They guaranteed the security of all people they encountered, including the muslims, the mariners and the travelers. This news reached Yemen at the end of the month of « Šaʿbān » (2).

The events of 919 H./1513 A.D., regarding the Franks, are stated in these terms: « The year 919 H. began. In the month of

(1) Ibn al-Muṭahhar, fl. 6 v, 3.
(2) Ibn al-Muṭahhar, f. 11 v, 15 to f. 12,4.

Many hegira dates are available in his poems. The latest three, that is 895, 900 and 906 [1], are accompanied by a detailed description of the last years of his life story.

In 895 H./1489 A.D., he said he had already spent fifty years in the observation of the stars of navigation [2]. He described the results of his experience for the benefit of the pilots and added that, after that long time in the sea, his old age was obviously noticeable and he himself was mentally irresponsive [3]. This half a century of arduous job on the ships and on the seas is referred to in the epitome of « Kitab al-Fawā 'id » [4].

In 900 H./1495 A.D., he reported in his poem « The Division of the Water Area », that all the hairs on his head were totally white and he was expecting to die at any time [5]. In the poem of the « Jewel of the Jewels », he stressed he had by far exceeded the age of 60 years and reached the end of his life: he said he was then as remote of his youth as Arcturus, Spica and Vega were distant from the earth [6]. This is evidently a way to place emphasis upon his advanced age and inactivity at his usual work. In other words, his career in navigation ended in 900H., and, from now on, he was unfit or unwilling to exercise any maritime duty.

Observing the logical sequence, it should be concluded that Ibn Māğid left the sea and lived on land after 900 H. He might have decided to spend his last days either at home in Mecca or in Ṣa'da or at his birthplace in Julfar. Any other residence would be highly hypothetical.

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(1) 895 is the date of the amendment of the « Golden Poem », and that of the composition of the « Poem of Mecca » and of the abridgment of al-Fawā'id; 900 is reported in the poem of « The Division of the Water Area » and in that of « The Jewel of the Jewels »; in 906, the « Poem of the Quintets » was written.

(2) The « Golden Poem », verse 9.

(3) The Poem of Mecca, verse, 151. « Qalb », in Arabic, means heart or intellect in the time of Ibn Māğid.

(4) Al- Fawā'id, pp. 202 p 13-14.

(5) The « Division of the Water Area », verses 202, 214.

(6) The « Jewel of the Jewels », verses 1-2.

1. Date of the composition of as-Sufaliyya

In the poem of Sofala itself, nothing is said specifically about the time of its composition.

Nevertheless, the amended version [1] of the « Golden Poem » of 895 H./1489 A.D., mentions 16 poems which have been composed before « aḏ-Ḏahabiyya ». As-Sufaliyya is cited by name among them [2]. So, it is absolutely sure that the poem of Sofala goes back to a date somewhere in the period preceding 1489 A.D., or eight years, at least, before the first voyage of Vasco da Gama to India, in an initial approach.

But the original version of the « Golden Poem » was composed before 880 H./1475 A.D., since this poem is referred to in the develeped book of al-Fawā'id, written at the same date, and that Ibn Māğid himself said he explained aḏ-Ḏahabiyya in 880 H. [3]. This implies that as-Sufaliyya is earlier than 880 H., or, written 22 years before da Gama left Portugal in 1497!

On the basis of this evidence, Ibn Māğid could not possibly have reported in as-Sufaliyya, any material event or incident, not yet happened and occurring after 880 H./1475 A.D., or, with extreme indulgence, after 895 H./ 1489 A.D., that is, in both cases, a very long time after he had finished his poem.

2. The old age or the death of Ibn Māğid

In like manner, the reference to the old age of Ibn Māğid or to his death, shows accurately he could not have contacted the Portuguese or have known anything about their voyages.

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(1) The « Golden Poem » was amended and the developed « Kitāb al-Fawā'id » was abridged at the same time in 895 H./1489 A.D. cf. « Kitāb al-Fawā'id », p. 167, 393-394 which is in fact an epitomy or a short new edition of the long version.

(2) « The Golden Poem » or « aḏ-Ḏahabiyya », verse 162.

(3) « al-Fawā'id », p. 18.

PART ONE

The falsification in the Poem of Sofala

In the past three decades, as-Sufaliyya was believed to be wholly a true poem of Ibn Māğid in the form and in the number of verses, presented in the photocopy of Shumovsky. It would comprise the 805 verses translated into Russian ([1]). It had been given an intrinsic value concerning the arab art of navigation, and a rather conjectural extrinsic value, derived from what Ibn Māğid was supposed to have done or said regarding the Portuguese and their navigation. To the best of my knowledge, none of all the scientists who dealt with it ever doubted or thought the photocopy of as-Sufaliyya might include any counterfeit verses, in spite of the obvious evidences pointing out the dubious passages, when the poem and its circonstances are carefully examined.

I — Factual Evidences of the false passages

These evidences may be outlined under five topics: the date of the composition of as-Sufaliyya, the old age or the death of Ibn Māğid, the dates of the first Portuguese voyages to India, the number of verses in as-Sufaliyya, and its doubtful unity in the photocopy.

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(1) Shumovsky, p. 45.

ly by the fact that it failed to free as-Sufaliyya from the scribal errors and defects and from spurious verses inserted between the authentic ones. These gloomy aspects may be due partly to the dry, sometimes apparently obscure thoughts of Ibn Māğid and his sober, concise and often elliptic technical style; and partly to the fact that Shumovsky himself is presumably not thouroughly used to deal with arabic navigational poems which differ completely from the classic poetry.

In 1960, Myron Malkiel-Jirmounsky translated the Russian text of Shumovsky into Portuguese. Many scientists from Portugal, Spain, France and England worked on both the Russian and Portuguese versions. As a result, false concepts spread out among scholars and ordinary readers about the personality of Ibn Māğid, his knowledge or his science, and his contacts with the Potuguese.

For the above reasons, I thought the photocopied poem of Shumovsky must first be cleared up of falsification and defects. Then, its translation and introductory analysis would be of real significance. This is what I did my best to achieve. I am sure much more should be added. I am convinced, too, that it would be quite beyond the power of a single person to say all that must be said upon such a wide subject, in one relatively short account. Neverthless, I hope this work would give an initial solid basis and preliminary comments for further studies.

PREFACE

As-Sufaliyya comes next to the first and most important writing of Ibn Māğid, I mean «Ḥāwiyat al-'Iḫtiṣār fi 'Uṣūl ʿIlm al-Biḥār», or, the Science of the Seas, a Compendium of basic elements, which deals with sailing in the Indian Ocean, the Red Sea and the arabian Gulf, and along their coasts.

The title of as-Sufaliyya implies literally that the shores of Sofala alone are treated. In fact, Ibn Māğid extends the scope of his poem to all East African Coasts from cape Guardafui to Southern Sofala.

In 1918, some scholars[1] knew that a unique manuscript, containing three poems of Ibn Māğid, including as-Sufaliyya, existed in the Oriental Institute in Leningrad (The Asiatic Museum of the Academy of Sciences).

In 1957, T. A. Schumovsky published it in photocopy and into a Russian translation and called it «Three Rutters of Ahmad Ibn Māğid, the Pilot of Vasco da Gama...». This edition was a hard task. When looking into this book, I was struk by the misleading title, by the numerous incorrect readings, misunderstandings, improper interpretations and mistakes, and ultimate-

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(1) Kratchkovsky and Ferrand.

APPENDIX

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Chapter V
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AS-SUFALIYYA
« THE POEM OF SOFALA »

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by

AHMAD IBN MĀĞID

(825 H./1421 A.D. — 906 H./1500 A. D.)

Translated and Explained

by

IBRAHIM KHOURY

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